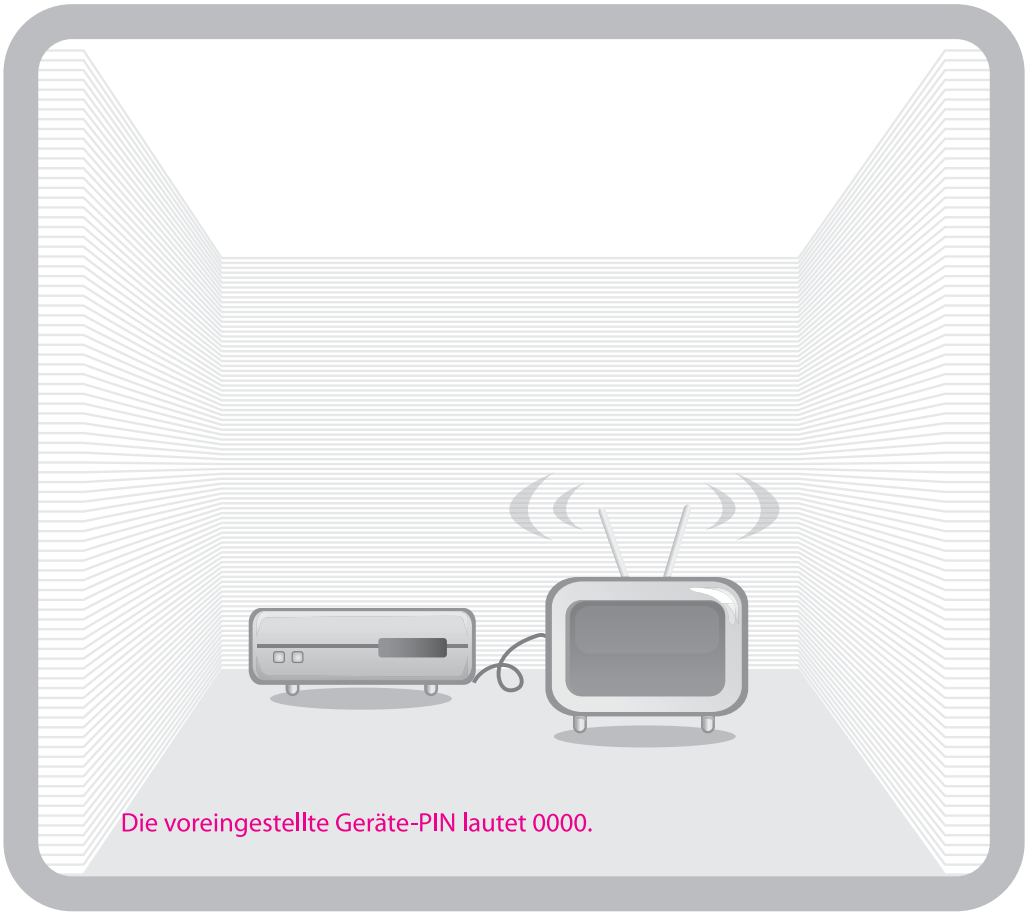
GEEIGNET FÜR
PREMIERE HDTV

HDTV-Festplatten-Receiver



Bedienungsanleitung
PDR iCord HD

HUMAX
EASY DIGITAL

Notice

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice.

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Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

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- Manufactured under license from Dolby Laboratories.
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Notice

Warnings, Cautions and Notes

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

- **Warning**
  Indicates a hazardous situation which could result in serious injury.
- **Caution**
  Indicates a situation which could damage the equipment or other apparatus.
- **Note**
  Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.

Meaning of Symbols

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

This symbol indicates **dangerous voltage** inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

Instruction about the 'WEEE' Symbol

This product should not be disposed with other household wastes at the end of its working life. Please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. This will prevent possible harm to the environment or human health from uncontrolled waste disposal.

- **Domestic users:**
  Please contact either the retailer where you purchased this product or their local government office for details of where and how they can take this item for environmentally safe recycling.
- **Business users:**
  Contact your supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Safety Warning

This product has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

Safety Instructions and Precautions

1. MAINS SUPPLY

90-250V a.c., 50/60Hz

- Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.
- Disconnect the product from the mains before you start any maintenance or installation procedures.

2. OVERLOADING

- Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

3. LIQUID

- The product should not be exposed to liquid of any kind. In addition, no objects filled with liquid should be placed on the apparatus.

4. CLEANING

- Disconnect the product from the wall outlet before cleaning.
- Use a light damp cloth (no solvents) to dust the product.

5. VENTILATION

- The slots on top of the product must be left uncovered to allow proper airflow into the unit.
- Do not stand the product on soft furnishings or carpets.
- Do not stack electronic equipments on top of the product.

6. ATTACHMENTS

- Do not use any unsupported attachments as these may be hazardous or cause damage to the product.

7. CONNECTION TO THE SATELLITE DISH LNB

- Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

8. CONNECTION TO THE TV

- Disconnect the product from the mains before connecting or disconnecting the cable from the TV. Failure to do so can damage the TV.

9. EARTHING

- The LNB cable must be earthed to the system earth for the satellite dish.

10. LOCATION

- Place the product indoors to avoid exposing it to lightning, rain or sun.
- Do not place it near a radiator or heat register.
- Make sure it has more than 10 cm clearance from any appliances susceptible to electromagnetic influences, such as a TV or a VCR.
- Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.

- If you place the product on a rack or a bookcase, ensure that there is adequate ventilation and that you have followed the manufacturer's instructions for mounting.
- Do not place the product on an unstable cart, stand, tripod, bracket, or table where it can fall.
- A falling product can cause serious injury to a child or adult, and serious damage to the appliance.

11. LIGHTNING, STORM OR NOT IN USE

- Unplug the product from the wall outlet and disconnect the antenna during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-surges.

12. EXTRANEOUS OBJECTS

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts.

13. REPLACEMENT OF PARTS

- When replacement of parts is required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitution may result in additional damage to the unit.

Warning

1. To avoid damage of the power cord or plug;

- Do not modify or process the power cord or plug arbitrarily.
- Do not bend or twist the power cord.
- Make sure to disconnect the power cord holding the plug.
- Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
- The mains plug, as a disconnection device, shall remain readily accessible by the user.

2. To avoid electrical shock;

- Do not open the main body.
- Do not insert metal or inflammable objects inside the product.
- Do not touch the power plug with wet hands.
  Disconnect the power cord in case of lightning.

3. To avoid damage of product;

- Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused to it. Make sure to contact your local product distributor if the product is out of order.
- Do not insert metal or alien substance into the slots for the modules or Smartcards. It may cause damage to the product and reduce its life span.

4. Hard Disk Drive

- Do not move the product or turn the power off suddenly while the hard disk drive is running.
- The company shall not be liable for any corruption of data on the hard disk drive caused by the carelessness or misuse of users.

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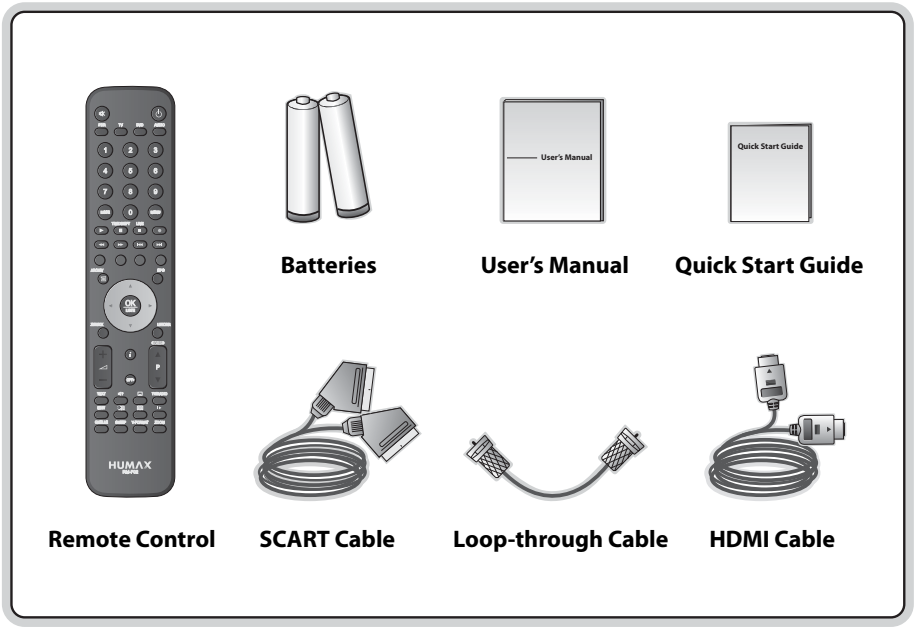
1. Before Using the Product

This chapter provides detail instructions on the product and its accessories.

1.1 Package Contents

Please check all package contents before using your product.



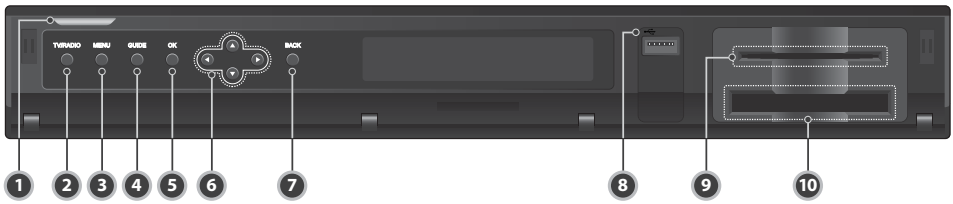
Note:

- Faults may occur if the remote control is left without battery for a long time. Always keep the battery inserted in the remote control.
- Package contents may vary according to area.

Caution:

- The company shall not be liable for problems caused by changing hard disk drive by user.
- The company shall not be liable for damages caused by using a hard disk driver with a larger capacity than the one provided.

1.2 Front Panel



1. **STANDBY BUTTON**
   Switches between operation and standby modes.
2. **TV/RADIO BUTTON**
   Switches between TV and radio modes.
3. **MENU BUTTON**
   Displays the menu.
4. **GUIDE BUTTON**
   Displays the programme guide. **GUIDE** button is matchable with **EPG** button of the remote control.
5. **OK BUTTON**
   Confirms the selected operation or display the channel list in normal viewing mode.
6. **ARROW BUTTONS**
   Changes the channel or moves the cursor up, down, left or right.
7. **BACK BUTTON**
   Returns to the previous channel. **BACK** button is matchable with **LETZTER** button of the remote control.
8. **USB HOST (for future use)**
   Connect to the USB memory or external HDD.
9. **SMARTCARD SLOT**
   A slot for Smartcard
10. **CI-MODULE SLOT**
    A slot for CI-Module

Note: The front of the product is subject to change without notice.

1.3 Conditional Access

Although some TV and radio channels are free to air, most TV and radio/music channels are available on a subscription basis and can only be enjoyed via a Conditional Access component.

1. Inserting the Smartcard

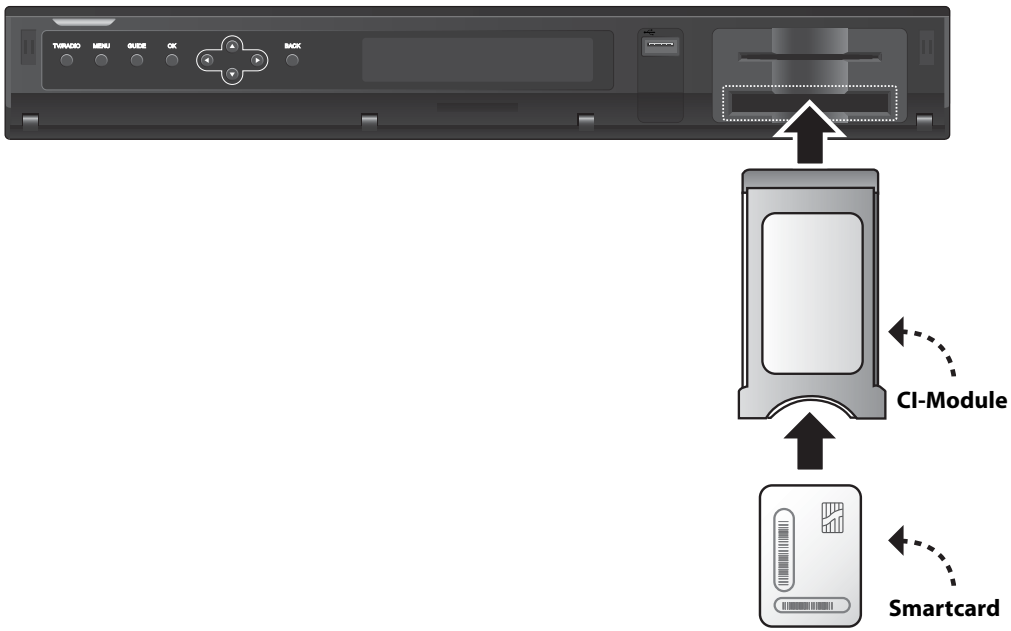
The Smartcard looks similar to a credit card and is inserted into the slot behind the right-hand front flap of the product. A valid Smartcard entitles you to view and listen to all the channels you choose to subscribe to. The Smartcard slot on the product can be used for Premiere Smartcard only.

1. Open the right-hand flap on the front panel of the product to expose the card slot.
2. Hold the Smartcard horizontally with the electronic chip (small square-shaped, gold in colour) facing upwards.
3. Insert the Smartcard into the top slot.

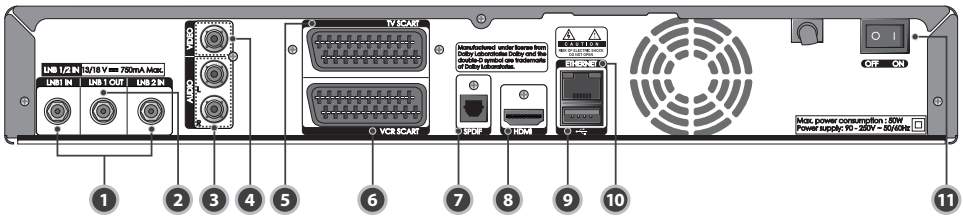
2. Inserting a CI (with Smartcard)

A CI module looks like a PC map (PCMCIA) for laptops. There are different kinds of CI Modules, suitable for different coding systems; Premiere entrance system, Irdeto, Conax and more. Additionally to the CI module, a Smartcard is needed to decode the channels.

1. Open the right-hand flap on the front panel of the product to expose the card slot.
2. Follow the instructions of the module and insert the Smartcard into the CI module.
3. Keep the CI module (with the Smartcard) horizontal.
4. Insert the CI module into the slot.



1.4 Rear Panel



1. **LNB 1 IN, LNB 2 IN**
   Connects a satellite antenna cable. Up to two cables can be connected.
2. **LNB 1 OUT**
   Connects another digital satellite receiver.
3. **AUDIO**
   Connects to the TV or VCR using an RCA cable.
4. **VIDEO**
   Connects to the TV or VCR using an RCA cable.
5. **TV SCART**
   Connects to the TV using a TV SCART cable.
6. **VCR SCART**
   Connects to the VCR or DVD using a VCR SCART cable.
7. **SPDIF**
   Connects to the audio system using an S/PDIF cable. (digital audio)
8. **HDMI**
   Connects to the TV using an HDMI cable.
9. **USB HOST (for future use)**
   Connects to the USB memory or external HDD.
10. **ETHERNET**
    Ethernet port (for future use)
11. **ON/OFF**
    Powers on/off.

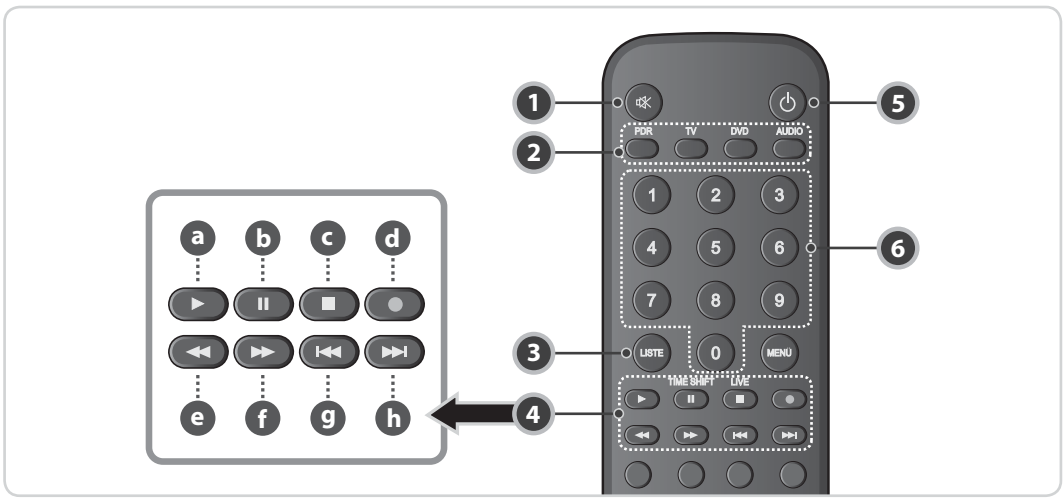
Note:

- The rear panel of the product is subject to change without notice.
- The LNB ratings of LNB 1 and LNB 2 are different.

LNB 1 IN	Max. 13/18V 250mA
LNB 2 IN	Max. 13/18V 500mA

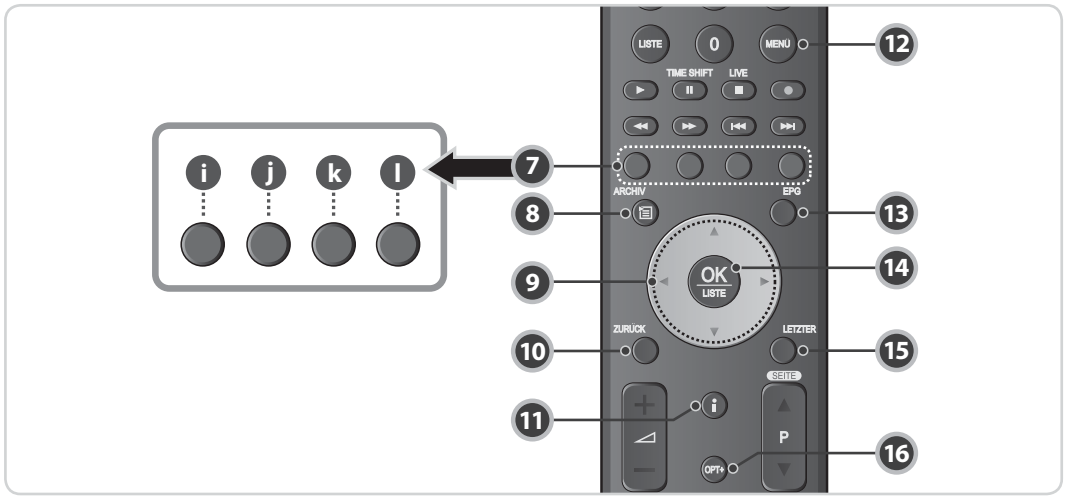
1.5 Remote Control

Note:
- The remote control of the product is subject to change without notice.
- Functions of the buttons vary depending on the menu.



1. **Mute**
   Mutes or unmutes the audio temporarily.
2. **UNIVERSIAL BUTTONS**
   Controls the operation of each device.
3. **LISTE**
   Displays the channel list while watching a programme.
4. **PLAYBACK CONTROL BUTTONS**
   a. **PLAY**
      Plays at normal speed or resumes.
   b. **PAUSE/TIME SHIFT**
      Pauses the live programme or recording.
   c. **STOP/LIVE**
      Stops a recording or goes to the live programme.
   d. **RECORD**
      Records programme.
   e. **FAST REWIND**
      Rewinds at high speed. Each time you press this button the rewind speed is increased.
   f. **FAST FORWARD**
      Fasts forward at high speed. Each time you press this button the fast forward speed is increased.
   g. **PREVIOUS**
      Goes to the previous chapter.
   h. **NEXT**
      Goes to the next chapter.
5. **STANDBY**
   Switches between operation and standby modes.
6. **NUMERIC(0-9) BUTTONS**
   Enters a TV/radio channel number or menu option number.

1. Before Using the Product



7. COLOUR BUTTONS

i. RED
Displays the channel list in normal viewing mode.

j. GREEN
Displays the favourite channel list in normal viewing mode.

k. YELLOW
Displays the satellite channel list in normal viewing mode.

l. BLUE
Displays the scrambled channel list in normal viewing mode.

8. ARCHIV
Displays the Archive list.

9. ARROW BUTTONS
Navigtates through the menu options.

10. ZURÜCK
Exits all On-Screen Display (OSD) screens.

11. i (INFORMATION)
Displays the channel and programme information.

12. MENÜ
Displays the main menu.

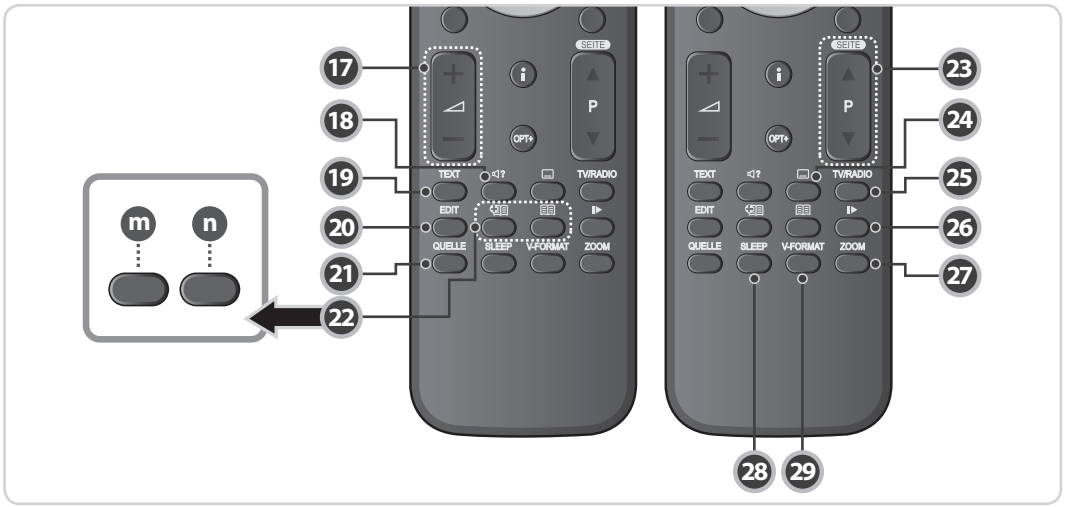
13. EPG
Displays the programme guide.

14. OK/LISTE
Selects a menu or confirms the selected operation. Displays the channel list while watching a programme.

15. LETZTER
Returns to the previous channel.

16. OPT+
Select favourites, lock, delete or rename channels.

1. Before Using the Product



17. VOL+/VOL-
Adjusts the audio volume.

18. AUDIO
Displays the audio list.

19. TEXT
Enters the digital text service.

20. EDIT
Displays the edit screen.

21. QUELLE
Controls the output of TV SCART.

22. BOOKMARK

m. ADD BOOKMARK
Saves the current viewing position as a bookmark during playback.

n. BOOKMARK LIST
Displays the list of saved viewing positions during playback.

23. P+/P-
Changes the channel or page.

24. SUBTITLE
Displays the subtitle language list.

25. TV/RADIO
Switches between TV and radio modes.

26. SLOW
Plays the programme in slow motion.

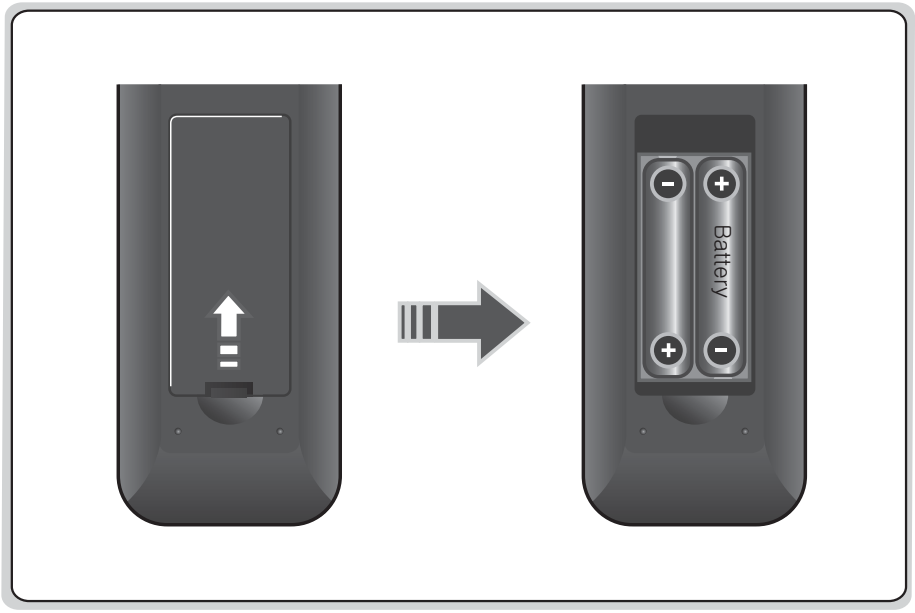
27. ZOOM
Sets the display format.

28. SLEEP
Sets the sleep time.

29. V-FORMAT
Changes the resolution of video.

1.6 Remote Control Batteries

1. Press down the top of the battery cover and slide the cover off.
2. Insert the new batteries. Make sure the plus (+) ends meet the plus markings on the battery case.
3. Slide the cover back into place.



2. Setup

This chapter describes how to connect your product to the TV with the particular equipments for gaining optimum signal quality. The product provides various interfaces to connect to the TV, VCR or other devices. Select the most appropriate procedure depending on the equipment you have.

Note: If you encounter any problems setting up your product, please contact your local product distributor.

2.1 Connecting the Antenna

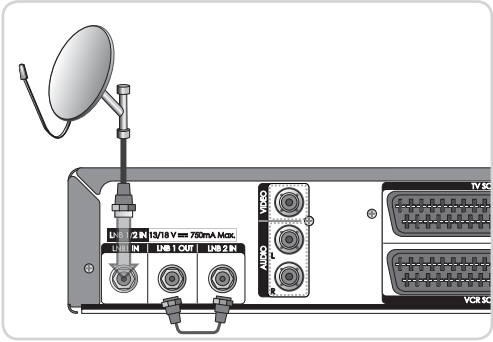
You can select one of the following antenna connections depending on the equipment you have. The product has two antenna modes according to setting.

1. Loop Through

1. Connect the antenna cable to LNB 1 IN.
2. Connect the other cable from LNB 1 OUT to LNB 2 IN.

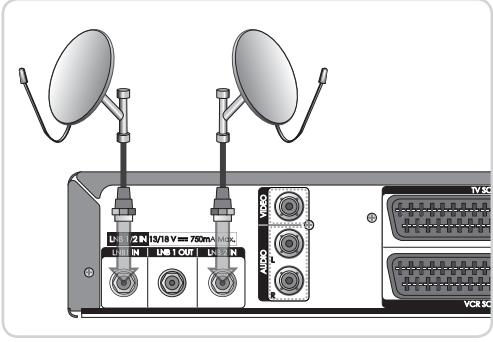
Note:

- Connect to LNB 1 IN when using the motor antenna or SCD Antenna (also known as Unicable or SATCR).
- You can switch channels while recording if the channels share the same polarity. However, you cannot switch to a channel with a different polarity from the channel being recorded.



2. Two Separate Antennas Setting

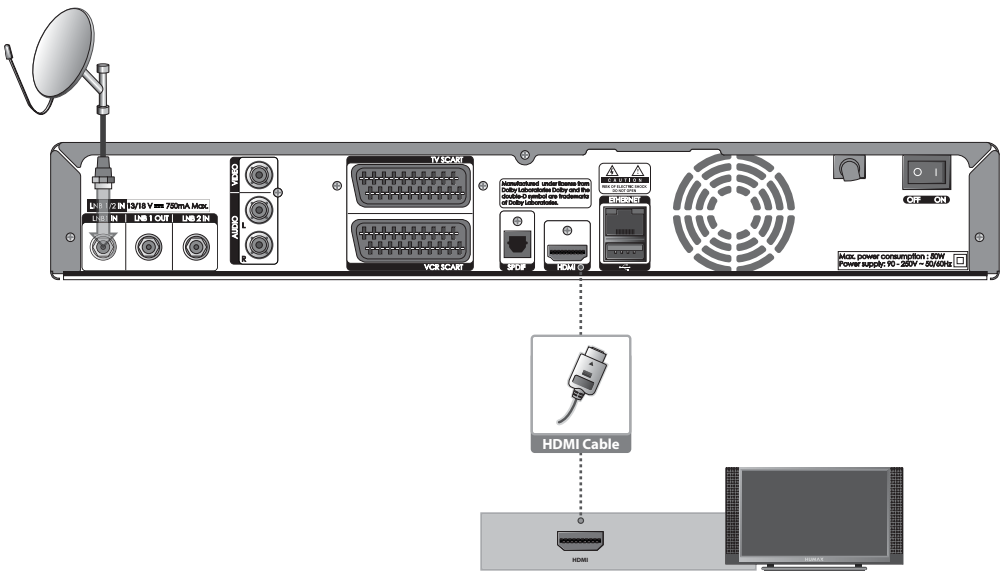
Connect the two antenna cables providing different broadcasting signals to your product. You can configure LNB 1 IN and LNB 2 IN independently.



2.2 Connecting the TV and VCR

1. Using HDMI Cable

The HDMI connection is recommended for Digital TV. In case the TV has a HDMI input connector, a special all-digital interface that provides the highest picture quality, connect the product and the TV using a HDMI cable as follows.

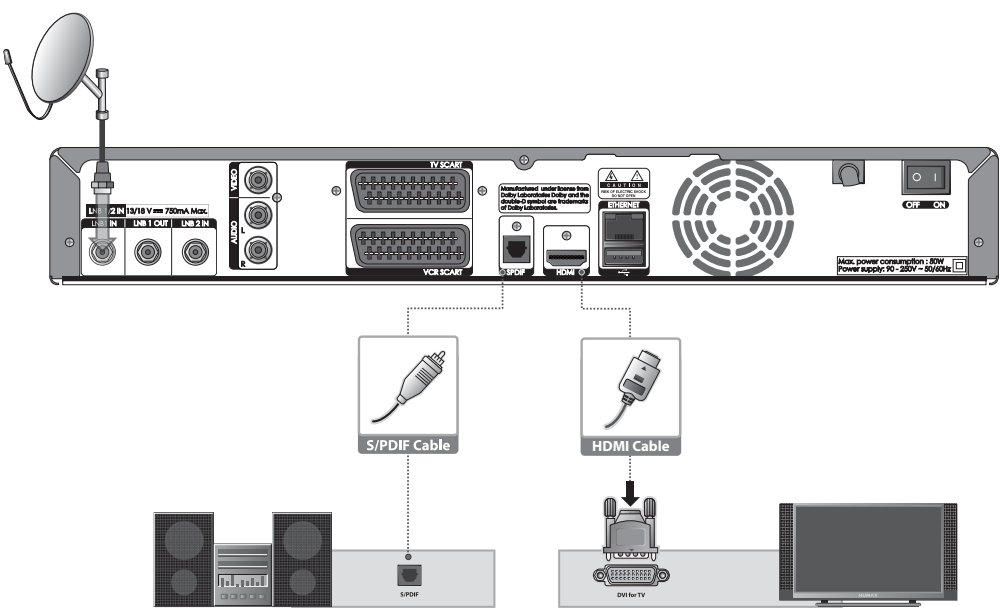


2. Using DVI Connector

The DVI connection using an HDMI to DVI converter is recommended for Digital TV. In case the TV has the DVI input connector only, connect the product to the TV with an HDMI cable using an HDMI to DVI converter as follows.

When equipped with an A/V receiver,

1. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
2. Connect the DVI converter to the TV.
3. Connect the product and the Dolby Digital decoder using an S/PDIF cable.



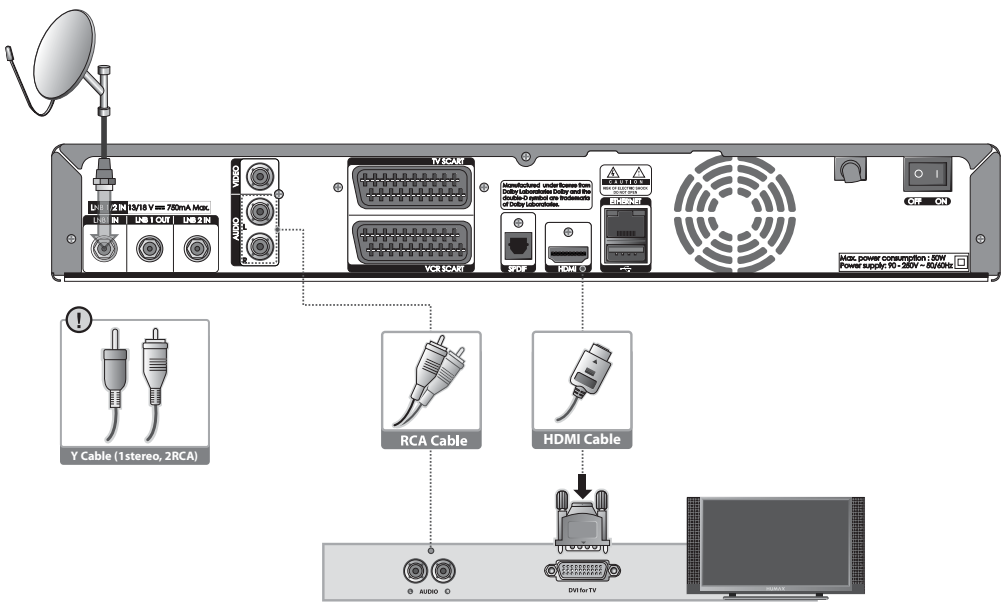
2. Setup

When there is no A/V receiver available,

1. Connect the product and the TV using an RCA cable.
2. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
3. Connect the DVI converter to the TV.

Note: You can also connect the product to the TV using the ***3.5 Stereo Jack Cable to 2 RCA Y Cable***.

Caution: DO NOT CONNECT TO HEAD PHONE CONNECTOR ON TV!



2. Setup

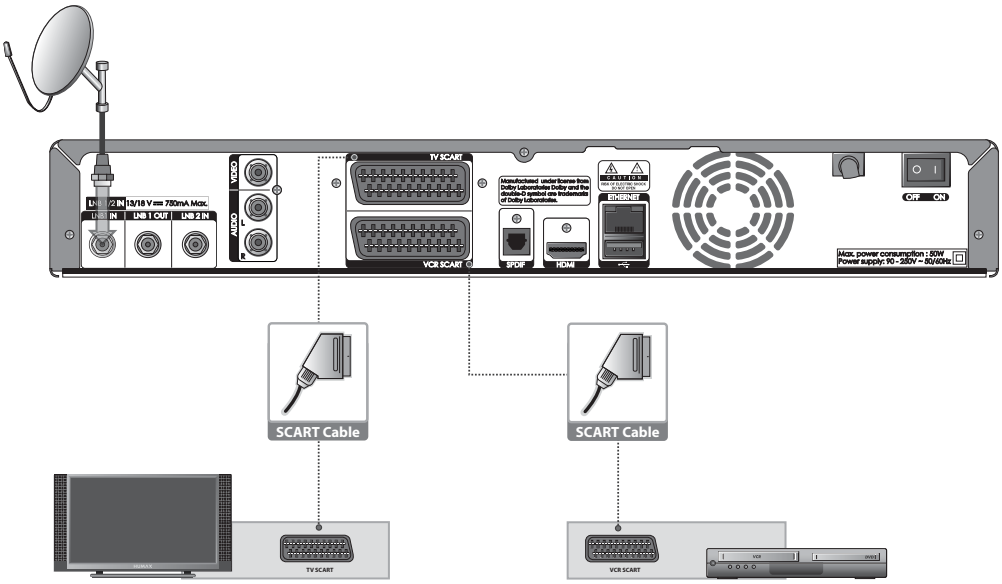
3. Using SCART Cable

A SCART cable connection is recommended for analogue TV or VCR.

1. Connect the product and the TV using a SCART cable.
2. Connect the product and the VCR using a SCART cable.

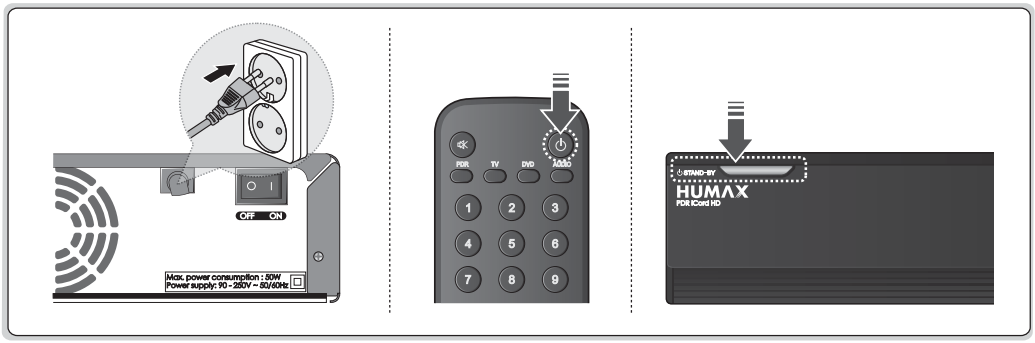
Note:

- Connecting your TV directly to the audio/video output of the product will assure a more vivid picture and enhance your viewing enjoyment.



2.3 Powering On

1. Connect the power cord of the product to a wall outlet.
2. Turn on the power switch located at the back left side of the product.
3. Power on by pressing the **STANDBY** button of the remote control or the **STANDBY** button at the front of the product.



3. Installation Wizard

When powering on your product for the first time after purchase, the installation wizard will operate automatically.

Tip: The default password is **0000**. If you have forgotten your password, please contact your local product distributor.

3.1 Language

Language allows you to select the main language.

Select the appropriate language from the list. Press the **OK** button to save.

3.2 Connection Type

Connection Type allows you to set the connection type of the antenna.

Select ***Connection type*** and press the **OK** or ◄/► button to select from the antenna option.

Then select ***Next*** and press the **OK** button.

Select ***Skip*** and press the **OK** button if your antenna type is SCD antenna, motor antenna.

One Cable	Loop through, Motor, SCD Antenna
Two Cable (Same)	Same tuners

3.3 Preferred Channels

Preferred Channels allows you to assign preferred channels of 1 ~ 99 which are the pre-programmed channels of the country you select.

Select the country and press the **OK** button.

Select ***Next*** and press the **OK** button.

Select ***Skip*** and press the **OK** button to skip the preferred channels.

3 Preferred Channels
Preferred channels are the preprogrammed channels of ASTRA 1 19.2E that are most viewed.
Select your country. The preferred channels of the country you select will be assigned as default channels 1~99.
Germany
Austria
Back
Next
Skip
Change
Select

3.4 Antenna Setting

Antenna Setting allows you to configure the antenna setting parameters.

1. **Satellite:** Select the satellite and press the **OK** button.
2. **LNB Frequency:** Select the required LNB frequency and press the **OK** button.
3. **22kHz Tone:** Select ***Enable*** or ***Disable*** and press the **OK** button.
4. **DiSEqC Input:** Select the required ***DiSEqC input*** and press the **OK** button.
5. **LNB Power:** Select the required LNB power. When selecting High, a warning message will appear; select ***OK*** and press the **OK** button.
6. Select ***Next*** and press the **OK** button to proceed.
7. Select ***Add another satellite dish*** and press the **OK** button to add another satellite. You can add up to four satellites.
8. Select ***Search*** and press the **OK** button.

Note:

- If you cannot find the required LNB frequency from the list, select ***User Define*** and manually enter the frequency using the **NUMERIC(0-9)** buttons and press the **OK** button.
- When using Universal LNB, select ***Universal***. The 22kHz tone value will be disabled.

3.5 Search Channels

Search Channels will activate and the results will appear.

To stop the channel search, select ***Stop*** and press the **OK** button. Select ***Save*** and press the **OK** button to go to the next step.

3.6 Software Update

Software Update displays the software version and lets you choose to update the new software.

When new software is detected, you can choose to download the software immediately or save for later.

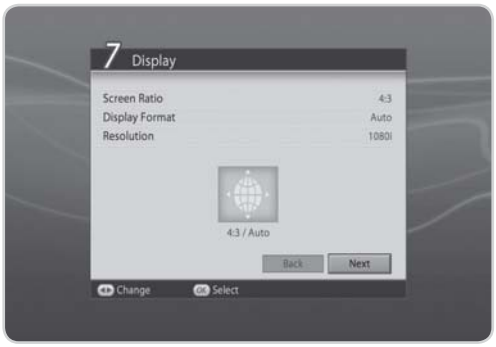
You can refuse software update if not needed. In case there is no software currently available, select ***Next*** and press the **OK** button to proceed to the next step.

3.7 Display

Display enables you to set the screen ratio, display format and resolution of the screen.

Select the value for ***Screen Ratio***, ***Display Format*** and ***Resolution***.

Select ***Next*** and press the **OK** button.



3.8 Result

After all setting is complete, you can view the result screen.

Select ***Finish*** and press the **OK** button to complete the installation wizard.

3.9 Installation Checklist

Before using the product, please make sure that you have completed the following steps.

Step	Page	Done?
Are the antennas connected correctly?	GB17	
Is the product connected to your TV?	GB18	
Is the power cord plugged in the wall outlet?	GB22	
Is the power switch located at the back of the product switched on?	GB22	
Is the product in operation mode (not Standby mode)?	GB22	
Have you performed channel search in the installation wizard?	GB23	

Note:

- If you exit the installation wizard without fully completing the channel searching procedure, you may not have all of the channels available. In this case, you can use the installation menu to search for more channels.
- Be sure to operate channel search even when you have selected default channels.

4. Basic Operation

This chapter describes the basic functions the product provides such as switching channel, volume control and other common features.

4.1 Switching Channel

You can switch the current channel by pressing the **P+/P-** button or entering the channel number directly using the **NUMERIC(0-9)** buttons. Press the **TV/RADIO** button to switch between TV channels and radio channels.

Note: You can switch channels using the channel list or TV guide. To return to the previous channel, press the **LETZTER** button.

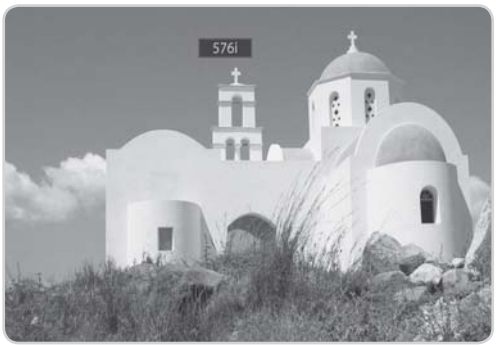
4.2 Volume Control

You can adjust the audio volume. Press the **VOL+/ VOL-** button to adjust the audio volume. Press the **MUTE** button to stop the audio temporarily.

Note: The mute function remains set while you switch channels.

4.3 Resolution

You can set the resolution of the screen. Press the **V-FORMAT** button while watching a programme. The current resolution will be displayed.
Each time you press the **V-FORMAT** button, the resolution changes in the following sequence:
576i→576p→720p→1080i→Automatic→As input



4.4 Sleep

You can set the automatic turn off time.

Press the **SLEEP** button while watching a programme to set the sleep time. Each time you press the **SLEEP** button, the sleep time changes in the following sequence: 10, 20, 30, 60, 90, 120 minutes.

4.5 Zoom

You can set the display format.

Press the **ZOOM** button while watching a programme to change the display format.
Each time you press the **ZOOM** button, the display format changes.

Note: For more information about display format, refer to ***7.7.2 Display Format***.

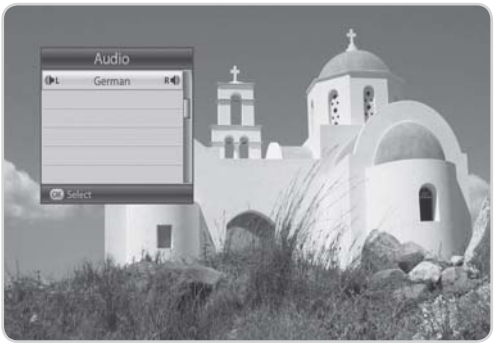
Screen ratio 4:3			Screen ratio 16:9		
Format	**Icon and Text**		**Format**	**Icon and Text**	
Letterbox	Letterbox		Pillar box	Pillar box	
Pan & Scan	Pan & Scan		Pan & Scan	Pan & Scan	
Auto	Auto		Auto	Auto	

4.6 Audio

You can select the language you prefer in ***Audio*** if the current programme is available in multiple audio languages.

1. Press the **AUDIO** button.
2. Select the audio language you prefer.
3. Select audio direction (left, right, stereo) using the ◄/► button.
4. Press the **ZURÜCK** button to close.

Note: If the programme is broadcast in Dolby Digital, you cannot set the audio direction.



4.7 Subtitle

You can select the language for the subtitle if the programme provides subtitle information.

1. Press the **SUBTITLE** button.
2. Select the required subtitle language and press the **OK** button. The subtitle will be displayed in the selected language at the bottom of the screen.
3. Select ***Off*** from the subtitle language list to hide the subtitle from the screen.

Note:

- When there is no subtitle available, ***Off*** does not appear.
- Subtitles will be always displayed when switching programmes unless you select ***Manual*** in the subtitle menu. Refer to ***8.3.2 Subtitle Display*** for details.

4. Basic Operation

4.8 Text

All teletext supporting channels have the teletext icon on the i-plate.

1. Press the **TEXT** button.
2. To display the teletext menu, press the **MENÜ** buttonin teletext mode.
3. Select the teletext function you want and press the **OK** button. To view the teletext page, use the ▲/▼ or **NUMERIC(0-9)** buttons.

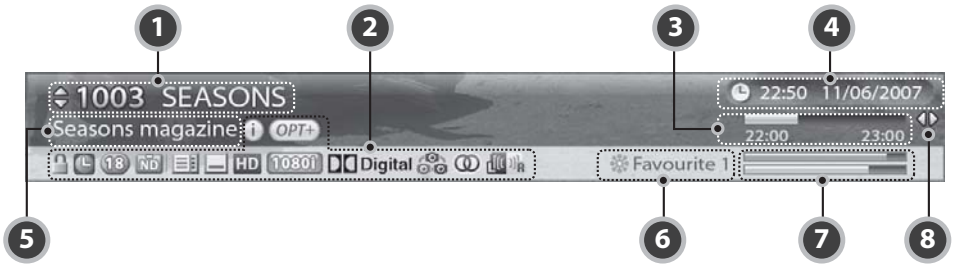
4.9 Programme Information (i-plate)

The i-plate is always displayed for a certain period of time whenever you switch channels. You can view the programme information by pressing the **i** button while watching a programme. Press the **ZURÜCK** button to hide the **i**-plate.

After switching to a channel, press the ◀/▶ button to display navigation mode.
Press the ◀/▶ button to view the previous/next programme information.
Press the ▲/▼ button to view the programme information of other channels.
Press the **OK** button in navigation mode to reserve future programmes.

1. General Information

The general information is displayed on the screen as the following.



<i-plate Navigation mode>

4. Basic Operation

1. Channel number and name
2. Icons

	Displayed only when the programme information is available.
	Displayed only when multifeed, multiple audio or dual audio is supported.
	Displayed only when the channel is a locked channel.
	Displayed only if the programme is reserved for recording.
	Represents parental level. Indicates the minimum level of age for viewing the programme.
	Displayed only when the channel is a scrambled channel.
	Displayed only when there is any teletext information.
	Displayed only when subtitle information is available.
	Displayed only when the channel provides HD programmes.
	Displays the resolution of the current programme.
	Displayed only when the programme is broadcast in Dolby Digital.
	Displayed only when multifeed is supported.
	Displayed only when there are more than two audios.
	Displayed only when dual mono is available.

3. Programme broadcasting time and progress bar: Displays programme playing time and progress bar.
4. Current time & date
5. Programme name
6. Group name: Displays the group the channel belongs to.
7. Signal icon, status: Displays the signal strength and quality.
8. Previous/Next programme information: Displayed if previous/next programme information is provided. Press the ◄/► button to display previous/next programme information.

Note: If there is no programme information available, programme information is not displayed.

2. Detailed Programme Information

You can see the detailed information about the current programme.

Press the **i** button when the **i**-plate is displayed to view detailed information. Press the **i** button once more to hide the i-plate.

1003 SEASONS
Seasons magazine
Mon 11 Jun, 22:00 ~ 23:00
[News] Présenté par Guillaume Desenfant.
"Margot Honecker und Elena Ceausescu, die beiden Ehefrauen der Generalsekretäre der jeweiligen Kommunistischen Parteien in Rumänien und der DDR, gaben sich mit der repräsentativen Rolle einer First Lady nicht zufrieden. S Sie bekleideten selbst staatliche Ämter und standen ihren Männern bis zum bitteren Ende zur Seite. Elena Ceausescu stammte wie ihr Mann aus sehr bescheidenen Verhältnissen. Dafür war ihr Anspruch auf pompösen Reichtum und königliche Würde bei offiziellen Auftritten schier unstillbar. Ein ganz anderes Image hatte die jahrzehntelang als DDR-Bildungsministerin amtierende Margot Honecker. Sie galt als zurückhaltende, eiserne bis eisige Frau, die ihre Weltanschauung
: 1003 SEASONS
Seasons magazine
22:50 11/06/2007
22:00
23:00
Favourite 1

Note:

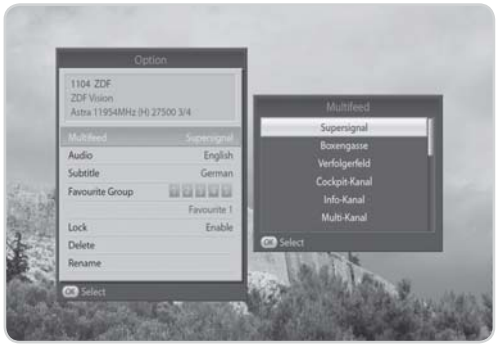
- If the detailed programme information is over one page, use the ▲/▼ button to move to the previous or next page.

4.10 Multifeed

You can choose from a choice of camera angles to watch the screen from different camera perspectives while watching a sports transmission. Different options are provided to view single matches or federal league games.

When tuning to a multifeed channel, the multifeed icon will appear on the i-plate.

1. Press the **OPT+** button after tuning to a multifeed channel.
2. Select ***Multifeed*** and press the **OK** button. The multifeed list will appear.
3. Select an option using the ▲/▼ button and press the **OK** button.



5. Channel List

This chapter will help you manipulate the channel list. You can display the channel list by pressing the **OK** button while watching a programme.

Four types of channel lists are provided for quick and easy channel search.

My TV (RED)	• **TV:** The list of all TV channels. • **Radio:** The list of all radio channels. • **HD TV:** The list of all HD TV channels. • **Recentty Viewed:** The list of the recently viewed channels.
Favourite (GREEN)	The list of the favourite channels in five groups. • **Most Viewed:** The list of the most watched channels.
Satellite (YELLOW)	The lists of channels classified by satellites.
Scramble (BLUE)	The lists of channels classified by CAS types.

Note:
- Press the **ZURÜCK** button to exit the channel list.
- The sub-groups of favourite channel list exist only after configuration.

5.1 My TV List

My TV List is the list of all channels available including both TV and radio channels.

1. Press the **OK** button while watching a programme to display the channel list.
2. Press the **RED** button while the channel list is displayed.
3. Select the channel you wish to view and press the **OK** button. You can also enter the channel number using the **NUMERIC(0-9)** buttons.
4. Press the **RED** button again or use ◄/► buttons to change the subgroup.

Note: You can switch between TV and radio by simply pressing the **TV/RADIO** button.

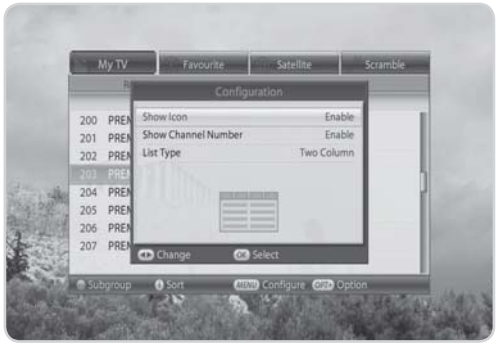
5. Channel List

1. Option

1. Select a channel and press the **OPT+** button.
2. To add the channel to the favourite group, select ***Favourite***. Select the group using the ◄/► button and press the **OK** button.
3. To lock the channel, select ***Lock*** and press the **OK** button.
4. To delete the channel, select ***Delete*** and press the **OK** button. A popup will appear. Select ***Yes*** and press the **OK** button.
5. To rename the channel, select ***Rename*** and press the **OK** button. Enter the name directly using the keyboard on the screen. Press the **YELLOW** button to complete.

2. Configuration

1. Press the **MENÜ** button.
2. To display the icon, enable ***Show Icon*** and press the **OK** button.
3. To display the channel number, enable ***Show Channel Number*** and press the **OK** button.
4. To change the list type, select from ***Simple***, ***One Column*** and ***Two Column*** and press the **OK** button.

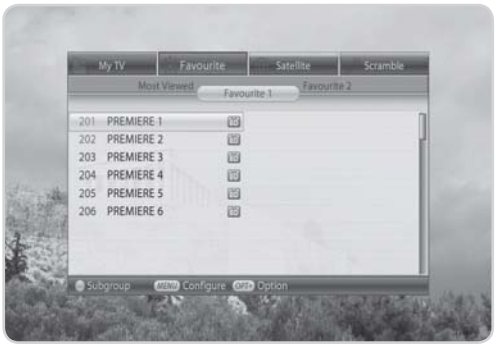


5.2 Favourite List

Favourite List is the list of the favourite channels you can select yourself from the entire channel list. There are five favourite groups in total.

1. Press the **OK** button while watching a programme.
2. Press the **GREEN** button to display the list of favourite groups.
3. Press the **GREEN** button again and select a favourite group using the ◄/► button.

Note: To create a favourite list, refer to ***5.1.1 Option***.



5.3 Satellite List

Satellite List is the list of channels included in the satellite you select.

1. Press the **OK** button while watching a programme.
2. Press the **YELLOW** button to display the satellite list.
3. Press the **YELLOW** button again and select a satellite list using the ◄/► button.

5.4 Scramble List

Scramble List is the list of channels included in the CAS you select.

1. Press the **OK** button while watching a programme.
2. Press the **BLUE** button to display the CAS list.
3. Press the **BLUE** button again and select a Scramble List using the ◀/▶ button.

6. TV Guide

The ***TV Guide*** displays the programme information of each channel, in time and date order. You can customize your own programme guide to list the channels or programmes of interest to you and schedule your viewing using the programme information.

Note: Press the **EPG** or **ZURÜCK** button to exit the TV guide screen.

6.1 Using TV Guide

You can view the programme information of all channels in time and date order.

1. Press the **EPG** button.
2. Press the **RED** button.

1. Table Guide

- Move to the previous/next programme within the same channel using the ◄/► button.
- Move to another channel using the ▲/▼ button. If the contents are more than one page, use the **P+/P-** button to skip to the next page. Enter the number of the channel you wish to move using the **NUMERIC(0-9**) buttons.
- Jump back/ahead two hours using the **FAST REWIND/FAST FORWARD** button.
- Move to the previous/next day using the **PREVIOUS/NEXT** button.
- Select the programme you want and press the **OK** button to play the programme in the PIG. Press the **OK** button again to view the programme.
- You can reserve it if it is a future programme. Select a future programme and press the **OK** button to see the reservation popup. Select the reservation type.

Record	Reserved for recording.
Watch	Reserved for watching.

- Select a reserved programme and press the **OK** button to cancel the reservation.
- Press the **OPT+** button to display the channels of each channel list. Change the channel list using the ◄/► button.
- Press the **i** button to view the programme information.

2. List

List displays the programme information for approximately a week. The features are similar as in table guide.

1. Press the **EPG** button.
2. Press the **GREEN** button.

Note:

- Press the **TV/RADIO** button to switch to TV or radio.
- You can reserve the programme after viewing the programme information.

6.2 Schedule

Schedule displays the list of the programmes reserved. You can modify, delete or make new reservations.

1. Press the **EPG** button.
2. Press the **YELLOW** button to display the schedule of reservations.
3. Press the **YELLOW** button again to switch from watching list to recording list.

Note: Press the **LETZTER** button to sort the list in time or alphabetical order.

6. TV Guide

1. Editing Reservations

1. Select a reservation you want to edit and press the **OK** button. The reservation popup will appear.
2. Select ***Channel*** and press the **OK** button to display the channel list. Select the channel.
3. Select ***Date*** and press the **OK** button to view the calendar. Select the date.
4. Select ***Start Time*** or ***End Time*** and enter the time using the **NUMERIC(0-9)** buttons.
5. Select ***Repeat*** and change the repeat frequency using the ◄/► button.
6. Select ***Mode*** and switch from ***Record*** to ***Watch***.
7. Select ***OK*** and press the **OK** button.

2. Deleting Reservations

1. Select a reservation you want to delete.
2. Press the **OPT+** button to delete the reservation.

3. New Reservation

1. Select a blank space and press the **OK** button.
2. The reservation popup will appear. Enter the channel number, date, start/end time, repeat frequency and mode and then press the **OK** button.

Note:

- Reservations for deleted channels or past programmes are automatically deleted.
- In case the channel number has changed, reservation has to be done again.

6.3 Find

Find enables you to find the programme you want by entering the genre, name, time and day of the programme.

1. Press the **EPG** button.
2. Press the **BLUE** button to find programme.
3. Enter the keyword, genre, time & day of the programme and select ***Search*** and then press the **OK** button.

1. Search by Keyword

1. Press the **OK** button while the cursor is on ***Keyword***.
2. A keyboard will appear. Enter the keyword.
3. Select ***Language*** and choose the language of the keyword.
4. Select ***SMS*** to switch to SMS keyboard.
5. Press the **YELLOW** button to complete.

Note: Press the **LETZTER** button to display seven of the most recent keywords that have been entered.

2. Search by Genre

1. Press the **OK** button while the cursor is on ***Genre***.
2. The list of genres will appear. Select a genre and press the **OK** button.

6. TV Guide

3. Search by Time and Day

1. Press the **OK** button while the cursor is on ***Time & Day***.
2. The time & day popup will appear. Select the time and day using the **OK** and ◄/► button.
3. Select ***OK*** and press the **OK** button.

4. Search Result

1. Select ***Search*** and press the **OK** button to proceed.
2. The search result of the entered values will appear.
3. To reserve a programme, select a future programme and press the **OK** button.
4. To search again, press the **BLUE** button.

7. Service Menu

In this chapter, you can easily access the service features of the product. Options such as PIN-Code change, smartcard, automatic activation, CI-module, system, search, picture, Dolby digital and startup channel are included in ***Service Menu***.

Note: Press the **ZURÜCK** button to save the changes and return to the previous menu. Press the **MENÜ** button to exit the menu screen.

7.1 PIN-Code Change

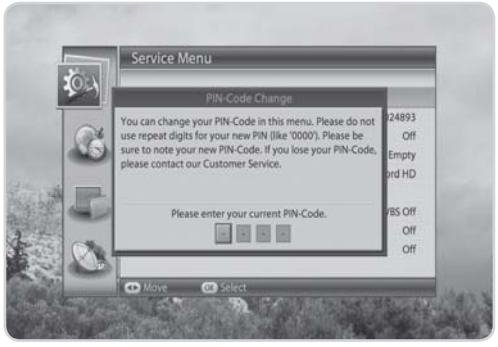
Tip: The default password is the 4-digit code on the Smartcard.

PIN-Code Change allows you to change the current PIN-Code.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.

1. PIN-Code Change

1. Select ***PIN-Code Change*** and press the **OK** button.
2. Enter the current PIN-Code using the **NUMERIC(0-9)** buttons.
3. Enter your new PIN-Code.
4. Enter the PIN-Code again to confirm.


Service Menu
PIN-Code Change
You can change your PIN-Code in this menu. Please do not use repeat digits for your new PIN (like '0000'). Please be sure to note your new PIN-Code. If you lose your PIN-Code, please contact our Customer Service.
Please enter your current PIN-Code.
Move
Select

2. In case of entering 4 identical digits

If you enter 4 identical digits when entering a new PIN-Code, an error message will appear. You will be prompted to enter another four-digit number as your new PIN-Code.

3. In case of entering a wrong PIN-Code

If you enter wrong PIN-Code when entering the current PIN-Code, an error message will appear. Your access will be denied for 10 minutes if you enter the wrong PIN-Code three times.

7.2 Smartcard

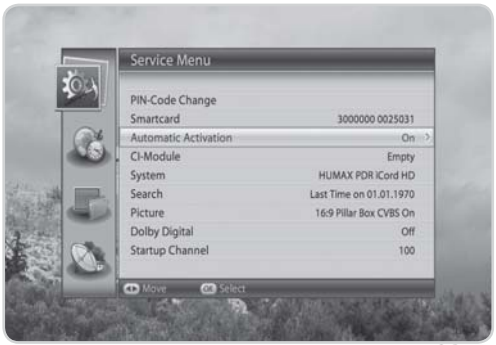
Smartcard allows you to view the current status of Smartcard.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Smartcard*** using the ▲/▼ button and press the **OK** button.
4. If Smartcard is available, you can view the Smartcard information.

7.3 Automatic Activation

Automatic Activation allows you to update the conditional access system automatically at the time you set.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Automatic Activation*** using the ▲/▼ button and press the **OK** button.
4. The Notice will appear. Select ***Yes*** and press the **OK** button to continue.



7. Service Menu

1. Automatic Activation

1. Select ***Automatic Activation***.
2. Press the **OK** or ▶ button to select ***On*** or ***Off***.

2. Update Time

1. Select ***Update Time*** using the ▲/▼ button and press the **OK** button.
2. Enter the time you want to update using **NEMERIC(0-9)** button.

7.4 CI-Module

CI-Module allows you to view the current status of CI module.

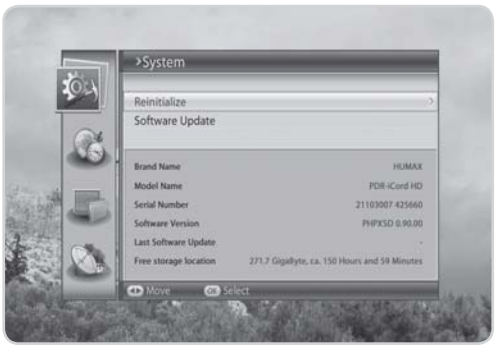
1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***CI-Module*** using the ▲/▼ button and press the **OK** button.
4. The common interface information will be displayed.

7.5 System

Tip: The default password is **0000**.

System enables you to initialize the product to the factory default and update the system software.

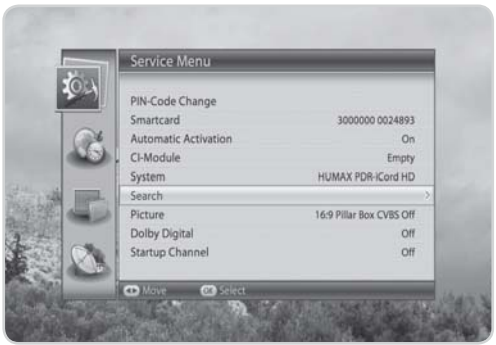
1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***System*** using the ▲/▼ button and press the **OK** button.
4. Select ***Reinitialize*** using the ▲/▼ button and press the **OK** button to initialize all settings.
5. Select ***Software Update*** using the ▲/▼ button and press the **OK** button to perform software update. When software update is complete, the product is automatically powered off and on again.



7.6 Search

Search allows you to search Premiere channels and all programme providers.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Search*** using the ▲/▼ button and press the **OK** button.



7. Service Menu

1. Sat-Connection

You can view the satellite connection type.

2. Premiere Search

1. Select ***Premiere Search*** and press the **OK** button.
2. Select ***Stop*** and press the **OK** button to stop the premiere search. The channels found so far will be displayed.
3. Select ***Delete*** and press the **OK** button to delete channels from the searched channels.
4. Select ***Save*** and press the **OK** button to save the changes.

3. Start Search of All Program Providers

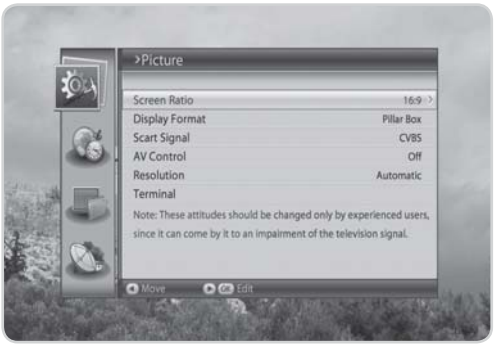
1. Select ***Start Search of All Program Providers*** and press the **OK** button.
2. Select ***Satellite***, ***Scrambled Type*** or ***Channel Type*** and press the **OK** button.
   - **Satellite:** Select All or the name of the satellite in antenna setting.
   - **Scrambled Type:** Select among All, FTA and CAS and press the **OK** button.
   - **Channel Type:** Select among All, TV and Radio and press the **OK** button.
3. Select ***Search*** and press the **OK** button. The channel search will start. To stop the search, press the **OK** button during channel search.
4. The results will appear. Select ***Save*** and press the **OK** button.

Note: If there are no channels available, a message indicating the result will pop up.

7.7 Picture

Picture allows you to set the screen ratio, display format, scart signal, AV control, resolution or terminal.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Picture*** using the ▲/▼ button and press the **OK** button.


Picture
Screen Ratio 16:9
Display Format Pillar Box
Scart Signal CVBS
AV Control Off
Resolution Automatic
Terminal
Note: These attitudes should be changed only by experienced users, since it can come by it to an impairment of the television signal.
Move
OK Edit

1. Screen Ratio

1. Select ***Screen Ratio*** and press the **OK** button.
2. Select ***4:3*** or ***16:9*** using the **OK** or ◄/► button.

2. Display Format

1. Select ***Display Format*** and press the **OK** button.
2. When choosing 4:3 as screen ratio, select among ***Auto***, ***Letter Box***, ***Pan & Scan*** and press the **OK** button.
3. When choosing 16:9 as screen ratio, select among ***Auto***, ***Pillar Box***, ***Pan & Scan*** and press the **OK** button.

3. Scart Signal

1. Select ***Scart Signal*** and press the **OK** button.
2. Select among ***CVBS***, ***S-Video*** and ***RGB*** and press the **OK** button.

4. AV Control

1. Select ***AV Control*** and press the **OK** button.
2. Select ***On*** or ***Off*** using the **OK** or ◄/► button.

5. Resolution

1. Select ***Resolution*** and press the **OK** button.
2. Select among ***Automatic, As input*** and ***User Setting*** and press the **OK** button.
3. When choosing ***User Setting***, select the resolution you want and press the **OK** button.

Note: If you cannot view the screen after setting the resolution manually in ***User Setting***, the system will return to the previous resolution in 10 seconds.

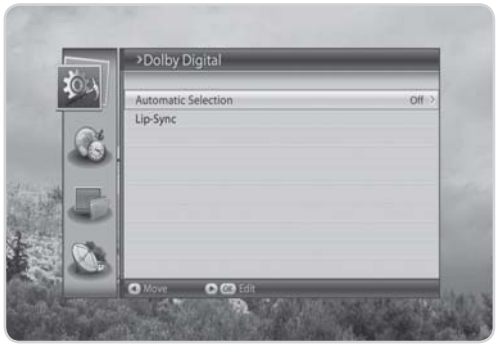
6. Terminal

1. Select ***Terminal*** and press the **OK** button.
2. When the product is connected to the TV using an HDMI cable, the TV information is displayed.

7.8 Dolby Digital

Dolby Digital allows you to set Dolby Digital automatically.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Dolby Digital*** using the ▲/▼ button and press the **OK** button.



1. Automatic Selection

You can set Dolby Digital automatically. Or you select ***On***, Dolby Digital audio will be output via S/PDIF.

1. Select ***Automatic Selection***.
2. Select ***On*** or ***Off*** using the **OK** or ◄/► button.

2. Lip-Sync

You can adjust the sound difference of audio and video.

1. Select ***Lip-Sync*** and press the **OK** or ▶ button.
2. Adjust the sync using the ◀/▶ button.
3. Press the **LETZTER** button to complete.

Note: Lip-Sync is applied to all channels when once adjusted.

7.9 Startup Channel

Startup Channel allows you to assign a certain channel to be displayed when the product is turned on.

1. Press the **MENÜ** button.
2. Select ***Service Menu*** using the ▲/▼ button and press the **OK** button.
3. Select ***Startup Channel*** using the ▲/▼ button and press the **OK** button.
4. Select ***Setting the Startup Channel*** and press the **OK** or ▶ button to select ***Activated*** or ***Disabled***.
5. If ***Activated*** is selected, select ***Startup Channel*** using the ▲/▼ button and press the **OK** button.
6. Select ***User Preference*** using the ▲/▼ button and press the **OK** button.
7. The Channel List will appear. Select the channel you want and press the **OK** button.

8. Preferences

In this chapter you can display archive list, set parental control, language setting, time setting, media setting, A/V setting and other configuration items to keep limitations where you want them for the viewers.

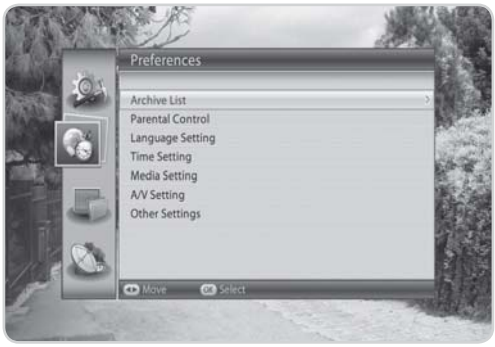
Note: Press the **ZURÜCK** button to save the changes and return to the previous menu. Press the **MENÜ** button to exit the menu screen.

8.1 Archive List

Archive List allows you to display the archive list.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Archive List*** using the ▲/▼ button and press the **OK** button.

Note: Please refer to **11. Archive List** for details.

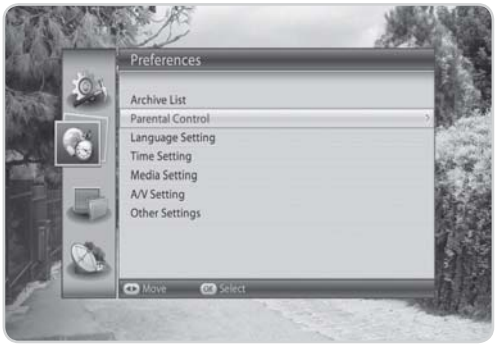


8.2 Parental Control

Tip: The default password is **0000**.

Parental Control allows you to set rating limits for each programme according to the age of the viewer or change your previous password. You can also lock the changes you have made using installation lock.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Parental Control*** using the ▲/▼ button and press the **OK** button.
4. You will be prompted to enter your password. Enter the password using the **NUMERIC(0-9)** buttons.



8. Preferences

1. Age Limit

Age Limit enables you to place certain restrictions on the viewers by setting age limits. The password is required to view the blocked programmes.

1. Select ***Age Limit*** and press the **OK** button.
2. Select the age limit you wish to set.

7, 12, 16	Programmes are blocked for children under the age 7, 12, 16
Lock All	All programmes are blocked.

Note: You must enter your password to watch programmes blocked by the age restriction.

2. Change Password

Change Password allows you to change the current password.

1. Select ***Change Password*** and press the **OK** button.
2. Enter the password in ***New Password*** using the **NUMERIC(0-9)** buttons.
3. Enter the password again in ***Verify Password*** to confirm.

3. Installation Lock

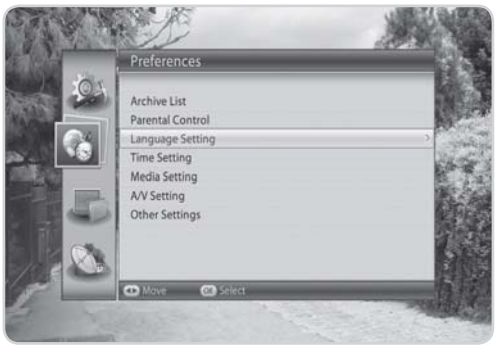
Installation Lock allows you to block access to the installation menu settings you have previously made.

1. Select ***Installation Lock***.
2. Select ***Enable*** or ***Disable*** using the **OK** or ◄/► button.

8.3 Language Setting

Language Setting enables you to set the basic language and subtitle options such as menu language, subtitle display and subtitle font.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Language Setting*** using the ▲/▼ button and press the **OK** button.



1. Menu Language

Menu Language allows you to choose from the given language options and set the language for the menu.

1. Select ***Menu Language*** and press the **OK** button.
2. Select the language you want and press the **OK** button.

2. Subtitle Display

Subtitle Display allows you to display the subtitle automatically. This service is provided when subtitles are available.

1. Select ***Subtitle Display***.
2. Select ***Auto*** or ***Manual*** using the **OK** or ◄/► button

Auto	Subtitles are displayed automatically in the predefined subtitle language.
Manual	Subtitles are displayed only when you press the **SUBTITLE** button and set subtitle.

3. Subtitle Font

Subtitle Font enables you to select the font of the subtitle.

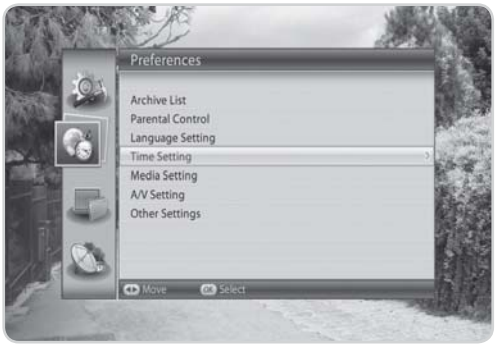
1. Select ***Subtitle Font*** and press the **OK** button.
2. Select ***Variable*** or ***Fixed*** using the **OK** or ◄/► button.

Variable	Uses the horizontally variable subtitle font of the on-screen display.
Fixed	Uses the fixed subtitle font as in teletext.

8.4 Time Setting

Time Setting allows you to set the time you want to turn the product on or off.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Time Setting*** using the ▲/▼ button and press the **OK** button.



8. Preferences

1. GMT Offset

You can set the GMT Offset of your region.

1. Select ***GMT Offset*** and press the **OK** button.
2. Select the appropriate GMT offset value and press the **OK** button.

2. Power On

You can set the time the product turns on automatically.

1. Select ***Power On***.
2. Enter the powering on time using the **NUMERIC(0-9)** buttons or select ***Disable*** using the **OK** or ◄/► button.

3. Power On Channel

You can select the channel to watch when the product turns on at the preset wakeup time.

1. Select ***Power On Channel*** and press the **OK** button to display the channel list.
2. Select the channel and press the **OK** button.

4. Power Off

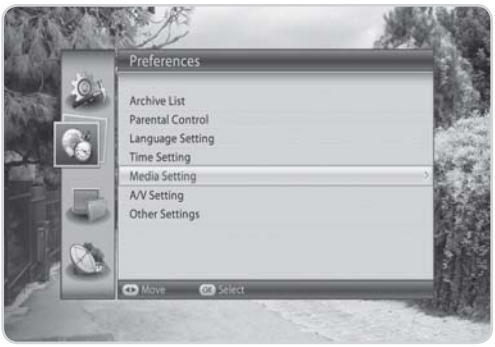
You can select the time the product turns off automatically.

1. Select ***Power Off***.
2. Enter the powering off time using the **NUMERIC(0-9)** buttons or select ***Disable*** using the **OK** or ◄/► button.

8.5 Media Setting

Tip: The default password is **0000**.

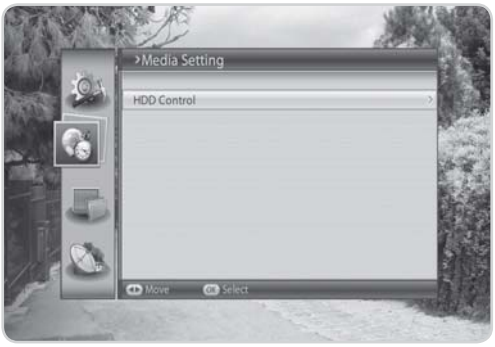
1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Media Setting*** using the ▲/▼ button and press the **OK** button.



1. HDD Control

You can format the video/radio partition or the hard disk drive.

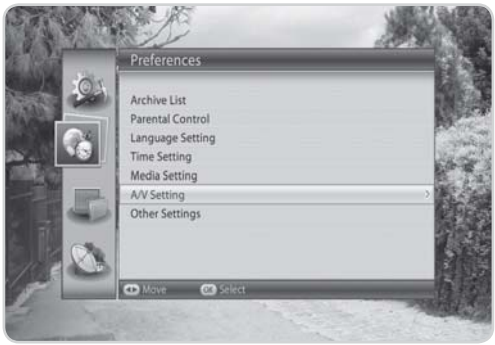
1. Select ***HDD Control*** and press the **OK** button
2. To format the hard disk drive, select ***Format HDD*** and press the **OK** button. Enter the password and assign the partition size using the ◄/► button. Select ***OK*** and press the **OK** button.



8.6 A/V Setting

You can configure the audio and video output settings.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***A/V Setting*** using the ▲/▼ button and press the **OK** button.



1. TV SCART

You can select the TV SCART output option.

1. Select ***TV-SCART*** and press the **OK** button.
2. Select among ***CVBS, S-Video*** and ***RGB*** and press the **OK** button.

2. VCR SCART

You can select the VCR SCART output option.

1. Select ***VCR-SCART***.
2. Select ***CVBS*** or ***S-Video*** using the **OK** or ◄/► button.

3. Audio Output

You can select the audio output option.

1. Select ***Audio Output***.
2. Select ***Stereo*** or ***Mono*** using the **OK** or ◄/► button.

4. Letter and Pillar Box Colour

You can set the colour for margin space according to the display format.

1. Select ***Letter and Pillar Box Colour*** and press the **OK** button.
2. Select ***Black*** or ***Gray*** using the **OK** or ◄/► button.

8.7 Other Settings

You can configure other settings such as info display time, OSD transparency and power saving in standby.

1. Press the **MENÜ** button.
2. Select ***Preferences*** using the ▲/▼ button and press the **OK** button.
3. Select ***Other Settings*** using the ▲/▼ button and press the **OK** button.

1. Info Display Time

You can set the automatic display time of the information box when the channel is switched.

1. Select ***Info Display Time*** and press the **OK** button.
2. Select a value between ***Disable, 1~20*** seconds and press the **OK** button.

Note: When set to ***Disable***, the ***i-plate*** will not be displayed when you switch the channel.

8. Preferences

2. OSD Transparency

You can set the transparency of the On-Screen Display.

1. Select ***OSD Transparency*** and press the **OK** button.
2. Select among ***Disable, 25, 50*** and ***75*** and press the **OK** button.

Disable	Fully opaque screen
25, 50, 75	The bigger the number, the more transparent the screen.

3. Power Saving in Standby

You can select whether the product switches to power saving mode in standby.

1. Select ***Power Saving in Standby*** and press the **OK** button.
2. Select from ***On*** and ***Off*** using the **OK** or ◄/► button.

4. Teletext Recording

You can set to record the teletext.

1. Select ***Teletext Recording*** and press the **OK** button.
2. Select from ***Enable*** or ***Disable*** using the **OK** or ► button.

9. Edit Channels

In this chapter you can edit all channels, the preferred channels or make changes to the favourite lists of the channels you have chosen.

Note:

- Press the **ZURÜCK** button to save the changes and return to the previous menu. Press the **MENÜ** button to exit the menu screen.
- Press the **TV/RADIO** button to move to TV or radio channel list directly.

9.1 Edit Preferred List

Edit Preferred List enables you to add, remove, sort, select or move the preferred channels 1 to 99 in the preferred channel list.

1. Press the **MENÜ** button.
2. Select ***Edit Channels*** using the▲/▼ button and press the **OK** button.
3. Select ***Edit Preferred List*** using the ▲/▼ button and press the **OK** button.

1. Adding/Removing Channels

1. Select the channels you want to add to the preferred channel list and press the **OK** button.
2. Press the **RED** button to add the channels to the preferred list you have chosen.
3. To remove channels from the preferred list, select the channels from the list and press the **RED** button.

Note: When the cursor is on the left column, the red button is marked ***Add***; when the cursor moves to the right column, it becomes ***Remove***.

9. Edit Channels

2. Selecting a Channel Group

1. Press the **GREEN** button to display the list of groups.
2. Select the group you want and press the **OK** button.

3. Select All/Release All

1. Press the **YELLOW** button to select all channels in the preferred list.
2. To release all channels, press the **YELLOW** button again.

4. Moving Channels

1. Select the channels to move within the preferred channel list and press the **OK** button.
2. Press the **BLUE** button.
3. Move the cursor to the destination using the ▲/▼ button, and press the **OK** button.
4. The selected channel is moved to the new location.

9.2 Edit Channel List

Tip: The default password is **0000**.

Edit Channel List enables you to delete, move, select, rename or lock/unlock the channels numbered from 200 and upward in the channel list conveniently.

1. Press the **MENÜ** button.
2. Select ***Edit Channels*** using the ▲/▼ button and press the **OK** button.
3. Select ***Edit Channel List*** using the▲/▼ button and press the **OK** button.

1. Deleting Channels

1. Select the channels you want to delete and press the **OK** button. You can select more than one channel.
2. Press the **RED** button to delete the chosen channels.

9. Edit Channels

2. Moving Channels

1. Select the channels you want to move and press the **OK** button. You can select more than one channel.
2. Press the **GREEN** button to move the chosen channels. The selected channel disappears from the channel list temporarily.
3. Move the cursor to the destination in the channel list and press the **OK** button.

Note:

- ***Move*** is available only for TV or radio channel lists.
- The channel number is changed by using ***Move*** function.

3. Selecting a Channel Group

1. Press the **YELLOW** button to display the list of groups.
2. Select the group you want and press the **OK** button.

9. Edit Channels

4. Renaming Channels

1. Select the channel you want to rename and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Rename*** and press the **OK** button.
4. Enter a channel name directly using the keyboard displayed on the screen.
5. Press the **YELLOW** button to complete.

5. Locking/Unlocking Channels

Tip: The default password is **0000**.

1. Select the channel you want to lock and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Lock*** and press the **OK** button.

Note:

- When all selected channels are locked, ***Lock*** is switched into Unlock. When you press ***Unlock***, the locked channel is switched into an unlocked channel.
- To watch locked channels, you must enter the password using the **NUMERIC(0-9)** buttons.

6. Select All/Release All

1. Press the **BLUE** button.
2. Select ***Select All*** and press the **OK** button.
3. To release one or more channels from select all, press the **OK** button while the cursor is on the selected channel.

9. Edit Channels

9.3 Edit Favourite List

You can add or remove channels from the favourite groups, move favourite channels, rename favourite groups.

1. Press the **MENÜ** button.
2. Select ***Edit Channels*** using the ▲/▼ button and press the **OK** button.
3. Select ***Edit Favourite List*** using the ▲/▼ button and press the **OK** button.

1. Adding/Removing Channels

1. Select the channels you want to add to the favourite channel list and press the **OK** button.
2. Press the **RED** button to add the channels to the favourite list you have chosen.
3. To remove channels from the favourite list, select the channels from the list and press the **RED** button.

Note: When the cursor is on the left column, the red button is marked ***Add***; when the cursor moves to the right column, it becomes ***Remove***.

2. Selecting Favourite Groups

1. Press the **GREEN** button to display the list of groups.
2. Select the favourite group you want and press the **OK** button.

3. Select All/Release All

1. Press the **YELLOW** button to select all channels in the favourite list.
2. To release all channels, press the **YELLOW** button again.

9. Edit Channels

4. Renaming Favourite Groups

1. Select the favourite group you want to rename and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Rename Group*** and press the **OK** button.
4. A keyboard will appear. Enter the name of the favourite group using the keyboard.
5. Press the **YELLOW** button to complete.

Note: The **YELLOW** and **BLUE** buttons become activated only when the cursor is placed on the right column.

5. Moving Favourite Channels

1. Select the favourite channels to move within the favourite channel list and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Move*** and press the **OK** button.
4. Move the cursor to the destination using the ▲/▼ button, and press the **OK** button.
5. The selected channel is moved to the new location.

10. Installation

In this chapter you can configure the installation setting and perform channel search. Menus such as antenna setting, search channels are included in this section.

Note: Press the **ZURÜCK** button to save the changes and return to the previous menu. Press the **MENÜ** button to exit the menu screen.

10.1 Antenna Setting [Fixed]

You can set the antenna and LNB information for channel search. If the antenna is not properly set, channel search cannot be activated which means you cannot watch any of the programmes on air.

MENU→Installation→Antenna Setting [Fixed]

1. Press the **MENÜ** button.
2. Select ***Installation*** using the ▲/▼ button and press the **OK** button.
3. You will be prompted to enter the password. Enter the password to proceed.
4. Select ***Antenna Setting*** using the ▲/▼ button and press the **OK** button.

1. Antenna Type

1. Select ***Antenna Type*** and press the **OK** button.
2. Select ***Fixed Antenna*** and then press the **OK** button.

2. Connection Type

1. Select ***Connection Type*** and press the **OK** button.
2. Select the connection type according to your antenna setting.

Connection Type	Description
One Cable	Select when a single satellite signal is available. **Examples)** You should set this option when the product is connected with : • A signal line from a single LNB of ASTRA1 19.2E. • A signal line from a DiSEqC switch connected with several single LNBs of ASTRA 1 19.2E or HOTBIRD 13.0E, etc.
Two Cable(Same)	Select when two satellite signals from the same satellite are available. **Examples)** You should set this option when the product is connected with : • Two signal lines from the twin LNB of ASTRA 1 19.2E. • Two signal lines from two DiSEqC switches connected with identical twin LNBs of ASTRA 1 19.2E or HOTBIRD 13.0E, etc.
Two Cable(Different)	Select when two satellite signals from two different satellites are available. **Examples)** You should set this option when the product is connected with : • Two different signal lines from a single LNB of ASTRA 1 19.2E and a single LNB of HOTBIRD 13.0E. • Two signal lines from two DiSEqC switches connected with different single LNBs of ASTRA 1 19.2E or HOTBIRD 13.0E, etc.

3. Satellite Setting

1. Select ***Satellite Setting*** and press the **OK** button.
2. Enter the value for ***Satellite, LNB Frequency, 22kHz Tone, DiSEqC Input, LNB Power*** and ***Transponder***.
3. Select ***Save*** and press the **OK** button to complete.

Satellite

Select the satellite the antenna is pointing to and press the **OK** button. If the required satellite is not available, select ***User Define*** and enter the name of the satellite directly.

LNB Frequency

Select the LNB frequency value and press the **OK** button. If the required value is not available, select ***User Define*** and enter the LNB frequency directly.

Note: If you select ***Universal***, the ***22kHz Tone*** will be disabled.

10. Installation

22kHz Tone

Select ***Disable*** or ***Enable*** using the **OK** or ◄/► button.

Enable	Dual LNB is used or two antennas are connected to the 22kHz tone switch box.
Disable	22kHz tone is not in use.

DiSEqC Input

Select the DiSEqC input option and press the **OK** button.

LNB Power

Select ***Standard*** or ***High*** and press the **OK** button.

Transponder

Set the transponder to check the signal status. Select the value for the transponder. If the required value is not available, select ***User Define*** and enter the transponder value directly.

Select ***Search*** and press the **OK** button to go to search channels.

10. Installation

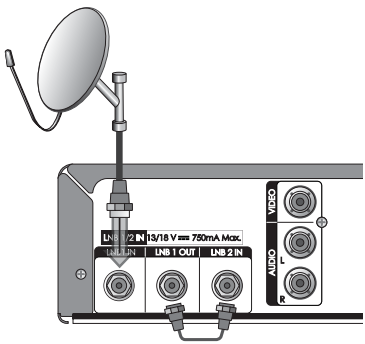
These connections are examples according to the connection type in fixed antenna settting.

Connecting to one satellite dish

1. Single LNB, Loop-though

Antenna Type
Fixed Antenna
Connection Type
One Cable
Tuner of Satellite Setting
• Tuner 1 : ASTRA 1 19.2E • Tuner 2 : Disable
DiSEqC Input of Satellite Setting
Disable

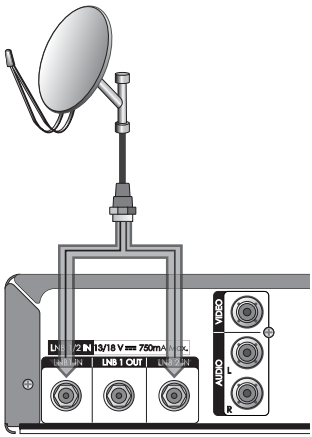
ASTRA 1 19.2E
Single LNB



2. Twin LNB

Antenna Type
Fixed Antenna
Connection Type
Two Cable (Same)
Tuner of Satellite Setting
• Tuner 1 : ASTRA 1 19.2E • Tuner 2 : Disable
DiSEqC Input of Satellite Setting
Disable

ASTRA 1 19.2E
Twin LNB

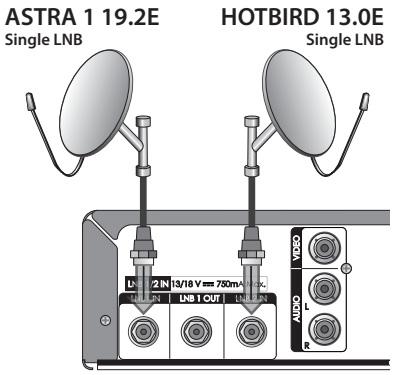


10. Installation

Connecting to two satellite dishes

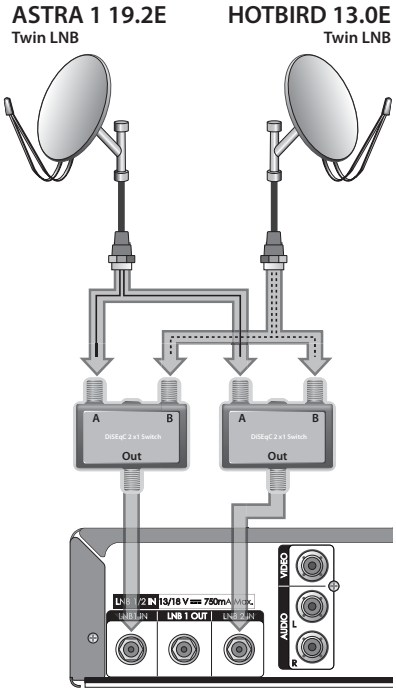
1. Single LNB for two different satellites

Antenna Type
Fixed Antenna
Connection Type
Two Cable (Different)
Tuner of Satellite Setting
• Tuner 1 : ASTRA 1 19.2E • Tuner 2 : HOTBIRD 13.0E
DiSEqC Input of Satellite Setting
Disable



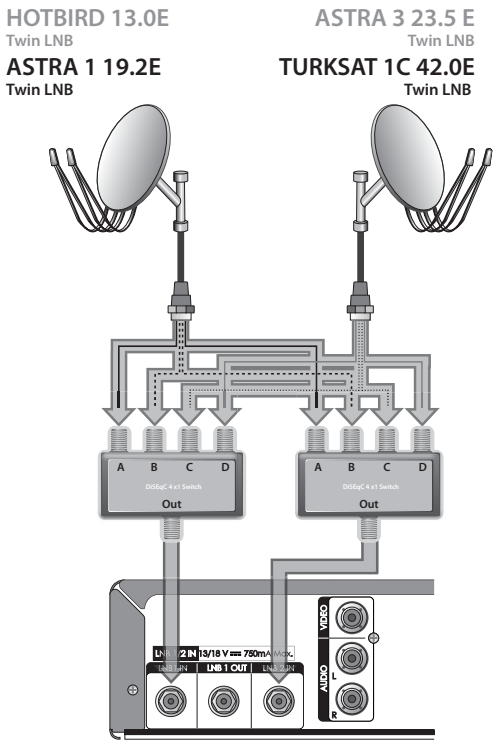
2. Twin LNB for two different satellites with DiSEqC switch

Antenna Type
Fixed Antenna
Connection Type
Two Cable (Same)
Tuner of Satellite Setting
Tuner 1 : ASTRA 1 19.2E, HOTBIRD 13.0E
DiSEqC Input of Satellite Setting
• ASTRA 1 19.2E : DiSEqC A ——— • HOTBIRD 13.0E : DiSEqC B ·····



3. Four twin LNB for four different satellites with DiSEqC switch

Antenna Type
Fixed Antenna
Connection Type
Two Cable (Same)
Tuner of Satellite Setting
Tuner 1 : ASTRA 1 19.2E, HOTBIRD 13.0E, TURKSAT 1C 42.0E, ASTRA 3 23.5E
DiSEqC Input of Satellite Setting
• ASTRA 1 19.2E : DiSEqC A ——— • HOTBIRD 13.0E : DiSEqC B ····· • TURKSAT 1C 42.0E : DiSEqC C ····· • ASTRA 3 23.5 E : DiSEqC D ———



4. Search Channels

Select ***Search*** and press the **OK** button to go to search channels.

Satellite

Select ***All*** or the name of the satellite in antenna setting.

Transponder

Select ***All*** or the value in the transponder list and press the **OK** button. If the required value is not available, select ***User Define*** and enter the transponder value directly.

Network Search

Select ***Disable*** or ***Enable*** using the **OK** or ◄/► button.

Scrambled Type

Select among ***All, FTA*** and ***CAS*** and press the **OK** button.

Channel Type

Select among ***All, TV*** and ***Radio*** and press the **OK** button.

Select ***Search*** and press the **OK** button. The channel search will start. To stop the search, press the **OK** button during channel search.

The results will appear. Select ***Save*** and press the **OK** button.

Note: If there are no channels available, a message indicating the result will pop up.

5. Set Transponder

Transponder setting is normally fixed. Change the setting only when necessary.

1. Select ***User Define*** in ***Transponder*** and press the **OK** button.
2. Enter the value for ***Frequency, Polarization, Symbol Rate, Transmission***, ***Modulation*** and ***FEC***.
3. Select ***Done*** and press the **OK** button to complete.

Frequency

Enter the frequency using the **NUMERIC(0-9)** buttons.

Polarization

Select among ***Auto, Horizontal*** and ***Vertical*** and press the **OK** button.

Symbol Rate

Select the symbol rate and press the **OK** button. If the required symbol rate is not available, select ***User Define*** and enter the symbol rate directly.

Transmission

Select ***DVB*** or ***DVB-S2*** and press the **OK** button.

Modulation

Select ***QPSK*** or ***8PSK*** and press the **OK** button.

FEC

Select the FEC value and press the **OK** button.

Note: When ***Transmission*** is set to ***DVB, Modulation*** is disabled. The values for ***Symbol Rate*** and ***FEC*** differ depending on the value of ***Modulation***. Refer to the table below.

Parameter	Value		
Transmission	**DVB**	**DVB-S2**	
Modulation	Disabled	QPSK	8PSK
Symbol Rate	2-45Ms/s	10-30Ms/s	10-31Ms/s
FEC	Auto, 1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 3/5, 4/5, 5/6, 5/11, 6/7, 7/8, 8/9, 9/10	1/2, 2/3, 3/4, 3/5, 4/5, 5/6, 5/11, 6/7, 7/8, 8/9, 9/10

10.2 Antenna Setting [SCD Antenna]

MENU→Installation→Antenna Setting [SCD Antenna]

SCD Antenna

Single Cable Distribution enables the delivery of broadcast programming over a single cable to multiple users eliminating the numerous cables required to support other electronics devices.
If you are using more than one satellite receiver, set one receiver at a time and turn off the others while setting. Refer to the satellite antenna manual for details.

1. Press the **MENÜ** button.
2. Select ***Installation*** using the ▲/▼ button and press the **OK** button.
3. Select ***Antenna Setting*** using the ▲/▼ button and press the **OK** button.
4. Select ***SCD Antenna*** in the ***Antenna Type*** menu.
5. The ***Connection Type*** is set automatically to ***One Cable***.
6. Enter the value for ***Tuner1, Band Frequency, Tuner2, Band Frequency*** and ***Satellite Setting***.

1. Tuner 1

Select from ***User Band 1-8*** and press the **OK** button.

2. Band Frequency

When selecting ***User Band 1-8*** in ***SCD Antenna***, the default value is displayed. Select the value and press the **OK** button. You can also enter the ***Band Frequency*** directly.

Note: If ***SCD Antenna*** is enabled, ***22kHz Tone*** and ***DiSEqC Input*** are disabled. When ***SCD Antenna*** is disabled, ***Band Frequency*** is also disabled.

3. Tuner 2

Select from ***User Band 1-8*** and press the **OK** button.

4. Band Frequency

When selecting ***User Band 1-8*** in ***SCD Antenna***, the default value is displayed. Select the value and press the **OK** button. You can also enter the ***Band Frequency*** directly.

5. Satellite Setting

1. Select ***Satellite Setting*** and press the **OK** button.
2. Enter the value for ***Satellite, LNB Frequency, LNB Power, Satellite Position*** and ***Transponder***.
3. Select ***Save*** and press the **OK** button to complete.

Satellite

Select the satellite the antenna is pointing to and press the **OK** button. If the required satellite is not available, select ***User Define*** and enter the name of the satellite directly.

LNB Frequency

Select the LNB frequency value and press the **OK** button. If the required value is not available, select ***User Define*** and enter the LNB frequency directly.

Note: If you select ***Universal***, the ***22kHz Tone*** will be disabled.

LNB Power

Select ***Standard*** or ***High*** and press the **OK** button.

Satellite Position

Select ***Position1*** or ***Position2*** and then press the **OK** button.

Transponder

Select the value for the transponer. If the required value is not available, select ***User Define*** and enter the transponder value directly.

6. Search Channels

Select ***Search*** and press the **OK** button. The channel search will start. To stop the search, press the **OK** button during channel search. The results will appear. Select ***Save*** and press the **OK** button.

10.3 Antenna Setting [Motor]

MENU→Installation→Antenna Setting [Motor]

1. Press the **MENÜ** button.
2. Select ***Installation*** using the ▲/▼ button and press the **OK** button.
3. Select ***Antenna Setting*** using the ▲/▼ button and press the **OK** button.
4. Select ***Motor Antenna*** in the ***Antenna Type*** menu.
5. The ***Connection Type*** is automatically set to ***One Cable***.
6. Select ***Satellite Setting*** and press the **OK** button.

1. Motor Setting

You can set the motor antenna for efficient channel search.

1. Select ***Motor Setting*** and press the **OK** button.
2. Enter the value for ***LNB Frequency, LNB Power, Motor Type, My Longitude*** and ***My Latitude***.

LNB Frequency

Select the LNB frequency value and press the **OK** button. If the required value is not available, select ***User Define*** and enter the LNB frequency directly.

Note: If you select ***Universal***, the ***22kHz Tone*** will be disabled.

LNB Power

Select ***Standard*** or ***High*** using the **OK** or ◄/► button.

Note: When ***LNB Power*** is set to ***High***, a popup appears; "High LNB Power. Only for LNB cable over 30m. Set LNB Power High."

Motor Type

Select ***DiSEqC 1.2*** or ***USALS*** using the **OK** or ◄/► button.

DiSEqC 1.2	General motor antenna using DiSEqC 1.2
USALS	Motor antenna using USALS.

Note: When ***Motor Type*** is set as ***DiSEqC 1.2***, both ***My Longitude*** and ***My Latitude*** are disabled.

My Longitude

Enter the longitude using the **NUMERIC(0-9)** buttons. Select ***East*** or ***West*** using the ◄/► button and press the **OK** button.

My Latitude

Enter the latitude using the **NUMERIC(0-9)** buttons. Select ***North*** or ***South*** using the ◄/► and press the **OK** button.

2. Edit Satellite Data

You can set the position of the satellite that the motor antenna is pointing to and decide whether to use the satellite.

1. Select ***Edit Satellite Data*** and press the **OK** button.
2. Enter the value for ***Satellite, Activate Satellite*** and ***Satellite Longitude***.
3. Select ***Save*** and press the ***OK*** button to save and return to the previous screen.

Satellite

Select a satellite to edit and press the **OK** button.

Activate Satellite

Select ***Disable*** or ***Enable*** using the **OK** or ◄/► button.

Enable	Channel search is available.
Disable	Current channel does not exist. Channel search unavailable.

Note: ***Activate Satellite*** is activated only when ***User define*** is selected in ***Satellite*** menu.

Satellite Longitude

Enter the longitude using the **NUMERIC(0-9)** buttons. Select ***East*** or ***West*** and press the **OK** button.

3. Position Setting

1. Select ***Position Setting*** using the ▲/▼ button.
2. Enter the value for ***Satellite, Transponder, Motor Driving,*** and **Driving Size**.

Satellite

Select the satellite the antenna is pointing to and press the **OK** button. If the required satellite is not available, select ***User Define*** and enter the name of the satellite directly.

Transponder

Select the value for the transponder. If the required value is not available, select ***User Define*** and enter the transponder value directly.

Motor Driving

1. Select among ***Continuous***, ***Step*** or ***Time*** and press the **OK** button.
2. When motor driving a set to ***Step*** or ***Time***, the ***Driving Size*** option is enabled. Select the driving size using the **OK** or ◄/► button.

Go to Stored Position

1. Press the **OK** button to move the antenna to the position of the selected satellite.
2. Wait until the antenna moves to the position of the satellite.
3. Confirm signal strength and quality level and fine-tune the antenna direction. Move the antenna East/ West by pressing the ◄/► button. Adjust the signal level to maximum.

Store Current Position

1. Press the **OK** button to save the adjusted position of the satellite.
2. The position of the antenna headed for the certain satellite will be saved.

Note: You can set the antenna position by repeating the procedure above.

Recalculate

1. Press the **OK** button to recalculate the position of the satellites based on one satellite.
2. To readjust all positions, select ***Yes*** and press the **OK** button.

Note: When ***Motor Type*** is set as ***USALS, Motor Driving, Store Current Position*** and ***Recalculate*** are disabled.

4. Limit Setting

You can set the default setting and operation limit for the motor antenna.

1. Select ***Limit Setting*** and press the **OK** button.
2. Enter the value for ***Motor Limit*** and ***Limit Position***.

Motor Limit

You can set the maximum motor limit for both East and West to prevent damage to the antenna.
Select ***Off*** or ***On*** using the **OK** or ◄/► button.

Off	Motor limit setting is released.
On	Motor limit is set. Motor does not exceed the limit.

Note: Select ***Off*** when setting a new motor limit.

Limit Position

Select ***East*** or ***West*** using the **OK** or ◄/► button.

East	Sets East limit.
West	Sets West limit.

Set Limit

1. Press the **OK** button.
2. Move the antenna to the East or West using the ◄/► button.

Note: When the limit is set, ***Motor Limit*** is automatically enabled.

Reset Position

1. Press the **OK** button to restore the position saved at the motor antenna to factory default.
2. A popup will appear. Select ***OK*** and press the **OK** button to reset all values saved at motor antenna to factory default.

Note: Reset may not activate depending on the condition of the antenna. Repeat the procedure above if necessary.

5. Search Channels

Satellite

Select ***All*** or the name of the satellite in antenna setting.

Transponder

Select ***All*** or the value in the transponder list and press the **OK** button. If the required value is not available, select ***User Define*** and enter the transponder value directly.

Network Search

Select ***Disable*** or ***Enable*** using the **OK** or ◄/► button.

Scrambled Type

Select among ***All, FTA*** and ***CAS*** and press the **OK** button.

Channel Type

Select among ***All, TV*** and ***Radio*** and press the **OK** button.

Select ***Search*** and press the **OK** button. The channel search will start. To stop the search, press the **OK** button during channel search.

The results will appear. Select ***Save*** and press the **OK** button.

Note: If there are no channels available, a message indicating the result will pop up.

11. Archive List

The product supports 2 types of Archive lists. Press the **ARCHIV** button and then the coloured buttons on the remote control to access each list.

Video (RED)	TV programmes that have been recorded
Radio (GREEN)	Radio programmes that have been recorded

11.1 Video

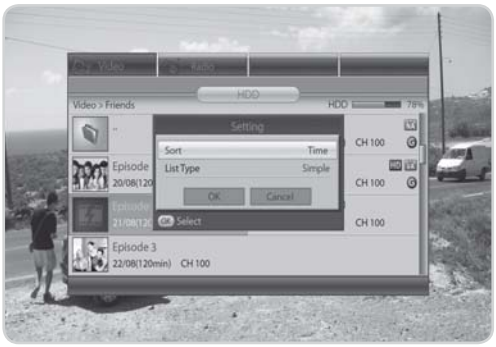
When the Archive List is on screen press the **RED** button to select ***Video*** if not already selected. A list of the TV programmes you have recorded will appear.

Note:

- Press the **LISTE** button to sort the files in file name, time, channel number order.
- Press the **EDIT** button to display File Manager.
- Press the **i** button to display the programme information of the selected recording.

1. Video Setting

Press the **OPT+** button in video list. A popup will appear to display the setting option.



- **Sort:** Select the sorting order.
- **List Type:** Select between ***Simple*** or ***Normal*** list types.

11. Archive List

2. Play Option

Select a recorded file you want to playback and press the **OK** button. A popup will appear to display the play option.

- **Play from the last played position:** Play the recorded file from the point it has been stopped.
- **Play from the start:** Play the recorded file from the beginning.
- **Delete a file:** Delete the file. Select ***Yes*** and press the **OK** button.
- **Rename:** Rename the file. Enter the name directly using the keyboard displayed on the screen. Press the **YELLOW** button to complete.

Note:

- Select a still image and press the ◄/► button to select the chapter you wish to view.
- You can also press the **PLAY** button to play the file from the last played position.
- A chapter is made automatically by dividing a file into eight smaller files and capturing a still image of each smaller file. Chapters are used in play option by pressing the **PREVIOUS** and **NEXT** buttons.

3. Making Playlist

You can playback the chosen files in the order you want.

1. Press the **EDIT** button to display File Manager.
2. Press the **BLUE** button and select ***Make playlist*** and press the **OK** button. A playlist will appear.
3. Select a file in the playlist and press the **OK** button to play the selected file.
4. Select a file in the playlist and press the **RED** button to delete the file from the playlist and renumber the list.
5. Select a file in the playlist and press the **GREEN** button to move the file. Move the file within the list using the ▲/▼ button. Press the **OK** button to complete.

File Manager (Video)
Delete
HDD/Video>
Play List
111 Prision Break - Episode 1 (10:00 04/23)
112 Prision Break - Episode 2 (10:00 04/24)
113 Prision Break - Episode 3 (10:00 04/25)
114 Prision Break - Episode 4 (10:00 04/26)
115 Prision Break - Episode 5 (10:00 04/28)
116 Prision Break - Episode 6 (10:00 04/29)
117 Prision Break - Episode 7 (10:00 04/30)
118 Prision Break - Episode 8 (10:00 05/01)
119 Prision Break - Episode 9 (10:00 05/02)
Delete
Move
Done

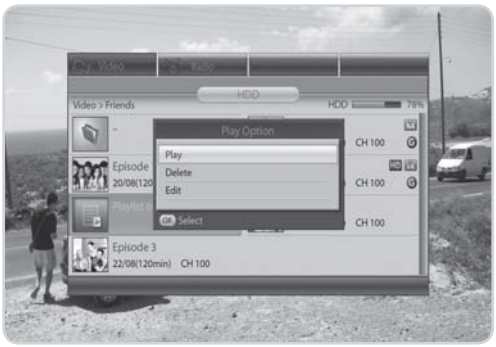
Note: If all files of the playlist are deleted, the playlist disappears.

4. Editing Playlist

After making a playlist, you can view the playlist in video list.

Select the playlist and press the **OK** button.

- **Play:** Play the playlist.
- **Delete:** Delete the playlist.
- **Edit:** Edit the playlist.



5. File Manager

You can delete files or edit multiple files.

Press the **EDIT** button to display File Manager.

- **Delete:** Select the file to delete and press the **RED** button.
- **Copy:** Select the file to copy and press the **GREEN** button.
- **Edit Mode:** You can edit multiple files. Press the **YELLOW** button to go to edit mode. Press the **YELLOW** button again to go back to normal mode.
- **Function:** Press the **BLUE** button.

Select All	Press the **OK** button to select all or release all.
Make Folder	Enter the name of the folder directly using the keyboard displayed on the screen. Press the **YELLOW** button to complete.
Rename	Enter the name directly using the keyboard displayed on the screen. Press the **YELLOW** button to complete. **Note:** You can rename only one file at a time.
Lock/Unlock	Press the **OK** button to lock or unlock file.
Make Playlist	Select the file(s) you want to include in the playlist and press the **BLUE** button. Select ***Make Playlist*** and press the **OK** button.
Add to Playlist	Select the file to add and press the **BLUE** button. Select ***Add to Playlist*** and press the **OK** button.
Edit Playlist	Select the file to edit and press the **BLUE** button. Select ***Edit Playlist*** and press the **OK** button.

11. Archive List

11.2 Radio

When the Archive List is on screen press the **GREEN** button to select ***Radio*** if not already selected. A list of the radio programmes you have recorded will appear.

Note: The features available in the radio list are the same as the video list in section ***11.1 Video***.

12. Personal Video Recorder (PVR)

The product automatically saves the programme to the built-in hard disk drive temporarily; this enables you to pause, play, fast rewind or fast forward the current broadcast.

12.1 Recording

Using the built-in hard disk drive, you can record a programme without external media devices such as a VCR.

Note:

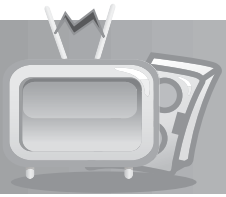
- Ensure that there is enough free space before recording. If the free space on the hard disk drive is insufficient, recording will stop. Recording a one-hour programme may require up to two or three GB of hard disk space. The space necessary for recording a one-hour programme may be different depending on the programme.
- You can record radio programmes also.
- Pressing the **STANDBY** button while recording will not stop the recording. The product will go to standby mode after completing recording.
- Press the **i** button to display the recording list and i-plate.

1. General Recording

Press the **RECORD** button to record the current programme instantly.

2. Adjusting Recording End Time

1. Press the **RECORD** button while recording to adjust the recording end time.
2. Select ***Finish in***, ***End of*** (current programme) or ***End of*** (next programme) to adjust the recording end time.
3. Select ***Setting*** and enter the recording end time using the **NEMERIC(0-9)** button.



3. Multi-Channel Recording

1. To record another channel, change channels while recording and press the **RECORD** button again.
2. You can record up to two channels simultaneously.
3. If you press the **RECORD** button while recording two other channels, you will be prompted to select a recording you want to stop and replace with a new recording.

4. Recording Duration

1. Press the **RECORD** button while recording to set the recording duration time.
2. The default recording duration time is two hours from the recording start time.
3. Press the ◀/▶ button to add or reduce the recording time in 10 minute units. The **RECORD** button functions as the ▶ button.

5. Stop Recording

1. Press the **STOP** button to stop recording one of the two other channels.
2. You will be prompted to select one among the current recordings. Select the channel you want to stop recording using the ▲/▼ button.
3. Select ***OK*** and press the **OK** button.

12.2 Time Shifted Recording (TSR) and Playback

You can perform Time Shifted Recording (TSR) and other VCR functions within TSR using the playback control buttons while playing a programme.

1. Playback

You can view the recorded files in the ***Archive List→Video***. Press the **ARCHIV** button to access the recorded file list easily.

1. Press the **PREVIOUS** button to start playback from the previous chapter.
2. Press the **NEXT** button to start playback from the next chapter.
3. Press the ◄ button to jump back and play from that point. Press the **STOP** button to return to live video.
4. Press the ► button to jump ahead and play from that point. Press the **STOP** button to return to live point.

Note:

- Enter the **NUMERIC(0-9)** buttons during playback and press the **OK** button to move to that specific time point.
- For more information about playback, refer to ***11.1.1 Play Option***

2. TSR

You can perform fast rewind, fast forward, slow motion and pause while playing back a recorded file from the media list.

Fast Forward

1. Press the **FAST FORWARD** button to fast forward the programme.
2. Each time you press the **FAST FORWARD** button, the speed increases in the following sequence: x2, x4, x6, x8, x10.
3. If you press the **PLAY** button, the fast forward operation stops and the programme is played at normal speed.

Note: You can use the fast forward operation only when there is a time gap between the current watching point and the broadcasting (live) point caused by previous operations such as pause, slow motion or fast rewind. You can fast forward to the current broadcasting point. If the watching point reaches the broadcasting (live) point, the programme is automatically played at normal speed.

12. Personal Video Recorder (PVR)

Fast Rewind

1. Press the **FAST REWIND** button to watch missed scenes.
2. Each time you press the **FAST REWIND** button, the rewind speed increases in the following sequence: x2, x4, x6, x8, x10.
3. If you press the **PLAY** button, the fast rewind operation stops and the programme is played at normal speed.

Note: You can fast rewind back to the start point. If you reach the start point while rewinding, the programme is automatically played at normal speed from that point.

Slow Motion

1. Press the **SLOW** button to playback the file in slow video.
2. If you press the **PLAY** button, the slow video operation stops and the programme is played at normal speed.

Pause

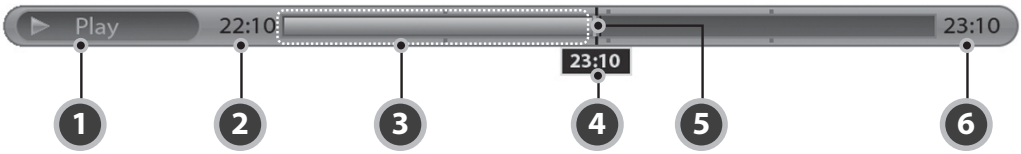
1. Press the **PAUSE** button to pause the current programme.
2. If you press the **PAUSE** button once again, the programme is resumed from that point.

Note: Pause makes the time gap or delay between the broadcasting (live) point and watching point. The time gap is equivalent to the period the programme has been paused. Operations such as slow motion and fast rewind also make the time gap. Press the **STOP** button to close the time gap and go to live programme.

12.3 Play bar

Press the **PLAY** button while watching a recording to display the play bar. Play bar displays the current operation status, the time gap between the broadcasting point and watching point and the amount of temporarily saved programme.

1. Play status
2. Start time
3. Amount of saved programme
4. Present time
5. Play pointer
6. Total time (present time in TSR)



To move to the specified time point directly, enter the time you want using the **NUMERIC(0-9)** buttons. To move the watching point bar to the time point you want, press the ◄/► button while playing back and then press the **OK** button to play the programme from the specified time point. If you do not press the **OK** button after moving the watching point, it will move automatically.

Press the **STOP** button to stop the current file and go to live TV.

12.4 Bookmark

1. Adding Bookmark

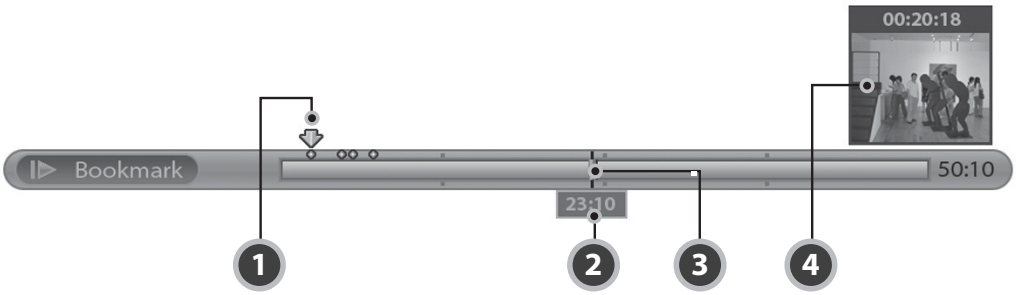
You can jump to a position directly using the bookmark feature in recorded file playback. Use bookmarks to search a specific scene quickly and conveniently.

Press the **ADD BOOKMARK** button at the location you want to set a bookmark while playing back a recorded file. The bookmark icon is displayed at the lower right of the screen.

Note: The bookmark function is available for recorded files only.

2. Bookmark List

1. Press the **BOOKMARK LIST** button after adding a bookmark.
2. Select the location you wish to view using the ◀/▶ button. The bookmark image is displayed at the lower right of the screen.
3. Press the **BOOKMARK LIST** button again to return to the play bar.
4. To delete a location, select the location you want to delete and press the **ADD BOOKMARK** button.



1. Bookmark cursor
2. Watching point time
3. Watching point
4. Bookmark icon

13. Software Update

In order to maintain proper performance of the product, it is essential to have the most up-to-date software. Visit the Humax website to check the latest news and newly released software versions. (***http://www.humaxdigital.com***) It is recommended that you periodically check for the availability of software update.

13.1 OTA (Over the Air)

OTA, an abbreviation of ***Over-the-Air***, is a standard for the transmission of software through a broadcast system. OTA is simply an alternative method for downloading software versions. However, the manufacturers reserve the right for deciding the release of the software for their products by beaming the latest software versions over the air via satellite. Note that OTA is only limited to certain geographical regions mainly due to different antennas having different footprints (area where the signal can be received). The software update via satellite will only occur under the following circumstances.

1. The equipment should have the appropriate loader software.

Caution: Please note that if the normal loader software is not equipped, the product may not be updated or operate properly after software update.

2. The manufacturer decides to release the software via a designated satellite.
3. The equipment must be tuned properly to the same antenna equivalent to that of the manufacturer.
4. Update software when the signal strength and quality is high. If the weather is not favorable, and the signal strength and quality are not recommendable, perform the software update later.

Caution:

- Please be careful to keep the power on and the power cord plugged in during software update. If the power is off during software update, fatal damage may be caused to the product.
- Please be careful not to pull out the signal line (LNB cable) during software update. Update may be interrupted and the product may not operate.

Note:

- It may take 5~10 minutes to update software.
- Other functions will not activate while software update takes place.
- You cannot schedule programmes during software update.

1. Downloading new software

When new software is detected, you can choose to download the software immediately or save for later. Select ***Yes*** to update the software now. Select ***No*** to update later. If you select ***No***, this message will reappear next time you power on.

14. Appendix

14.1 Menu Map

 Service Menu	1. PIN-Code Change 2. Smartcard 3. Automatic Activation 4. CI-Module 5. System 6. Search 7. Picture 8. Dolby Digital 9. Startup Channel
 Preferences	1. Archive List 2. Parental Control 3. Language Setting 4. Time Setting 5. Media Setting 6. A/V Setting 7. Other Settings
 Edit Channels	1. Edit Preferred List 2. Edit Channel List 3. Edit Favourite List
 Installation	1. Antenna Setting 2. Search Channels

14.2 Trouble Shooting

Before contacting your local service centre, please read the tips below carefully. If the problem persists after completing the following procedure, please contact your local product distributor or service centre for further instructions.

1. **No message displayed on the front panel. (The product will not switch on.)**
   - Check the main power cable and make sure it is plugged into a suitable power outlet.
   - Check that the mains supply is switched on.
   - Check that the power switch is on at the rear of the product. (where applicable)
   - Connect the power cable to a different power outlet.

2. **No picture on TV set**
   - Make sure that the product is powered on and in operation mode. (Press the STANDBY button)
   - Make sure that the AV cable is firmly connected to the TV.
   - Make sure that the antenna cable is properly connected to the product.
   - Make sure that the antenna setting in the menu is correct.
   - Check the brightness level of the TV.
   - Check if the channel is currently on air. Contact the broadcaster to ensure that the channel is running.
   - Press the QUELLE button if the product is in external input mode.

3. **Poor picture/sound quality**
   - Install the antenna in an obstacle-free place.
   - Make sure there is no mobile phone or microwave oven near the product.
   - Keep the power and the antenna cable for the satellite apart from each other.
   - Check the signal levels and adjust your antenna if the level is too low. The signal level may be affected by weather conditions.

Note: If the antenna is covered with snow or the RF is weakened by heavy rain, the condition of the sound and picture may temporarily be poor. However, the poor sound and picture quality due to weather conditions cannot be accepted as a malfunction of product.

   - Check that your dish alignment is correct.
   - Change the satellite dish for a larger one as this will increase the signal levels received.
   - Replace the LNB with a lower noise factor in cases where the noise factor is too high.
   - Replace the LNB with a new one in case it is damaged or out of order.

4. **No or poor sound**
   - Check that your AV cable is connected correctly.
   - Check the volume levels of your TV set and the product.
   - Check if the product or TV is on mute.
   - Check audio type or soundtrack option in the AV menu.

5. **Remote control does not operate.**
   - To control the product, the top end of the remote control should point directly towards the receiving part of the product.

- Remove and reinsert the batteries in the remote control.
- Replace the batteries in the remote control for a new set.

6. Cannot make reservations.
- Check that no previous reservations are conflicting with the new reservation.
- Check that the product is switched on when starting recording

7. No password information is given.
- The default password is always 0000.

8. Channel search does not work.
- Make sure that the antenna setting in the menu is correct.

9. Cannot update new software.
- You can get an update. If the product does not show a message requesting update, that means no software is available.

10. Cannot watch scrambled channels.
- Check that you have the appropriate Smartcard or CI-Module. Reinsert the Smartcard or CI-Module and make sure it initializes correctly.
- Check in the menu that the product is detecting the Smartcard or CI-Module.
- Check in the menu that you have a valid and working subscription to the channels you wish to view.
- Ensure that the Smartcard or CI-Module is not damaged.

11. Cannot watch pay channels.
- Check in the menu that you have a valid and working subscription to the channels you wish to view.
- Contact your network operator for more information.

12. Cannot record progammes.
- The hard disk is full. Delete unnecessary programmes and make space for new recording.
- Check if recording is overlapped with another channel. Stop the current recording or wait until the recording is finished.

13. Cannot operate the TSR (Time Shifted Recording).
- The TSR may not be available during the recording. Wait until the recording is finished.
- Delete unnecessary programmes and make space for new recording.

14. The product makes a humming noise.
- The noise is from the fan; the hard disk is operating normally. This kind of noise is inevitable but seldomly noticeable.

15. Cannot playback.
- To play back the recorded file of a scrambled channel, use the Smartcard. In case it has been a long time since you last recorded, this may not work. Contact the product distributor.
- The signal during the recording may be weak or the hard disk too full.

16. Cannot change channel while recording.
- Certain channels may not be changed due to restriction of the tuner or connection type.

14.3 Error Message

Error message	Possible causes	What to do
No or bad signal	The satellite dish is not pointing at the satellite.	Adjust dish alignment.
	Signal is too weak.	Increase the LNB voltage or connect a signal amplifier.
	Satellite dish is too small.	Change to a larger dish.
	Problem with LNB.	Change the LNB.
	Wrong antenna setting.	Set the antenna correctly.
The channel is scrambled or not available.	The channel has a signal, but no audio or video is provided.	Confirm if the channel is currently on air.
	The channel has not been deleted by broadcasting company.	Remove the channel from the channel list and check for new transponder details.
	The channel is for data broadcasting.	The channel cannot be viewed with the appropriate model that supports data channels.
	Smartcard is not plugged in.	Insert Smartcard.
	Wrong Smartcard is in use.	Insert the appropriate Smartcard for the channel(s) you wish to view.
	Smartcard is not plugged in correctly.	Reinsert Smartcard; ensure that it is inserted correctly.
	Smartcard is damaged.	Contact your Smartcard retailer or channel broadcaster for a Smartcard replacement.
Audio not available.	The channel has a video signal, but no audio is provided.	Press the audio button on your remote control to confirm that the channel has audio options.
CI module not installed	CI module is not installed.	Insert CI module
	CI module is not inserted correctly.	Reinsert CI module.
	CI module is not recognized.	Insert a different CI module to check if your existing module is working.

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Error message	Possible causes	What to do
Invalid CI module	Wrong CI module.	Insert the correct CI module.
	CI module is not inserted correctly.	Remove and reinsert the CI module.
	CI module is damaged.	Replace CI module.
Short LNB	LNB cable is short.	Replace LNB Cable.
	LNB is internally short.	Replace LNB.
	Alien substance is inserted in LNB IN Port and port may be damaged.	Remove the alien substance and contact local Service center in case damaged has occurred.

14.4. Specification

Tuner & Channel	
Input Connector	F-Type, IEC 169-24, Female
Frequency Range	950MHz to 2150MHz
Signal Level	-25 to -65dBm
LNB Power & Polarisation	Vertical : +13.3V(+14.3V at high voltage) Horizontal : +18.3V(+19.3V at high voltage) LNB Rating : LNB 1 IN: Max. 13/18V 250mA LNB 2 IN: Max. 13/18V 500mA
22KHz Tone	Frequency : 22 ± 4KHz Amplitude : 0.7 ± 0.2V
DiSEqC Control	Version1.0, 1.2, USALS, SCD (Single Cable Distribution)
Demodulation	QPSK, 8PSK
Input Symbol Rate	DVB: 2-45Ms/s DVB-S2 : 10-30Ms/s (QPSK), 10-31Ms/s(8PSK)
FEC Mode	DVB: Auto,1/2,2/3,3/4,5/6,7/8 DVB-S2: 1/2, 2/3, 3/4, 3/5, 4/5, 5/6, 5/11, 6/7, 7/8, 8/9, 9/10 (QPSK/8PSK)
MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile Level	MPEG-2 MP@ML, MPEG4 HD HP@L4, PAL
Input Rate	15MB/s Max
Video Format	4:3, 16:9
Video Resolution	1080i, 720p, 576p, 576i
Audio Decoding	MPEG-1 Layer II, Dolby-AC3 Audio
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Memory	
Flash Memory	16MB
RAM	256MB
EEPROM	8KB

14. Appendix

Audio/Video	
Video	TV-SCART(CVBS, S-Video, RGB) VCR-SCART(CVBS, S-Video) RCA-Type(CVBS), HDMI/HDCP
Audio	TV-SCART, VCR-SCART, Audio L/R, S/PDIF(Digital Audio Output)
File Format	JPEG(jpeg, .jpg, .jpe, .jfif), MP3(mp3, .mp2, .mp1)
Data Port	
USB	USB 2.0 Host (5V ⎓ 500mA Max.)
Power Supply	
Input Voltage	90-250V a.c., 50/60Hz
Type	SMPS
Power Consumption	Max. 50W
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size	380mm×55mm×252mm
Weight (Net)	3.1kg
Operating Temperature	0 ºC to +45 ºC
Storage Temperature	-10 ºC to +70 ºC

14.5 Glossary

1. **DiSEqC (Digital Satellite Equipment Control)**
   A DiSEqC compatible receiver relies on a switching box which detects the 22kHz tone pulsing rapidly on and off. In this way, a specially designed receiver can control numerous LNBs through a DiSEqC switching box.

2. **Dolby Digital**
   An encoding system that digitally compresses up to 5.1 discrete channels of audio (left front, centre, right front, left surround, right surround) into a single Bitstream. A low frequency effect (LFE) channel is included providing the sound needed for special effects.

3. **DVB (Digital Video Broadcasting)**
   Set of standards that define digital broadcasts using satellite, cable or terrestrial systems.

4. **EPG (Electronic Programme Guide)**
   An electronic equivalent to a printed television listings magazine; it is an application used with digital set-top boxes and digital television sets to list current and scheduled programs that are or will be available on each channel, including a short summary or commentary for each program. The information supplied in the EPG is sent and updated by the channel broadcaster.

5. **FEC (Forward Error Correction)**
   A technique for error control of data transmission.

6. **Frequency**
   The property of a signal measured in cycles per second (=Hz).

7. **FTA (Free- To-Air)**
   An unscrambled broadcaster allowing customers to view channels or services without paying any subscription.

8. **Hi-Fi (High Fidelity)**
   The characteristics of audio devices that can play back all the audio frequencies a person can detect, which is the range of 16Hz~20KHz. Sometimes it is used to indicate good quality of audio devices such as stereo tape recorders.

9. **LNB (Low Noise Block)**
   A device that is mounted on an arm facing your satellite dish, focusing on satellite signals. A LNB converts signals received from satellite to a lower frequency and sends them to a satellite receiver via coaxial cable.

10. **OSD (On Screen Display)**
    OSD displays the basic information necessary for the users to configure monitor or TV settings. OSD information may include brightness, contrast, tuning, RGB adjustment, and screen size and position.

11. **OTA (Over the Air)**
    A standard for the transmission of software for equipment, through a broadcast system. Manufacturers reserve the right for deciding the release of the software for their products.

12. **Polarization**
    The direction of the electrical and magnetic fields of a signal. Satellites use both vertical and horizontal polarisation. Means that a frequency can be used twice.

13. **PID (Packet Identifier)**
    A set of numbers identifying stream packets contained within a single data stream.

14. **QPSK (Quaternary Phase Shift Keying)**
    Digital modulation technique in which the carrier phase can have one of four possible values.

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15. RF (Radio Frequency)
Television signals are modulated onto RF signals and are then demodulated by your television's or STB's tuner.

16. RF Modulator
Enables you to output the receiver's digital signals to a TVs RF (Aerial) input, allowing you to connect the receiver to a TV set without a SCART connection.

17. SCART
A 21-pin connector standard to connect two pieces of Audio-Visual equipment such as a TV and a VCR. Each device will have a 21-pin female connection; a cable with male connection at both ends is used for connecting the devices.

18. Smartcard
A credit card sized card that contains updateable chip memory. It is used for accessing Pay TV (encrypted) channel or services when inserted into an appropriate receiver.

19. S/PDIF (Sony/Philips Digital Interface format)
A standard format for the transfer of digital audio signals. It allows the transfer of digital audio between two devices without any conversion to and from analogue, which could degrade the signal quality.

20. S-Video (Super-Video)
Sometimes referred to as Y/C video; a technology for transmitting video signals via a cable. It is a video signal transmission in which the luminance (brightness) and the chrominance (colour) signals are transmitted separately to achieve superior picture clarity.

21. Transponder
A satellite is divided up in parts called transponders. A transponder is one distribution section of the satellite. Each transponder can be used for distribution of several channels or services.

22. PVR (Personal Video Recorder)
Video recorder that can record and playback programmes directly using the embedded hard disk drive(s).

23. TSR (Time Shifted Recording)
A function that records the present programme temporarily to support trick-play.

24. HDD (Hard Disk Drive)
The primary computer storage medium, which is made of one or more aluminum or glass platters, coated with a ferromagnetic material.

14.6 Service and Support

Information concerning troubleshooting, software upgrade and product support is provided in the following websites and call centers. Should your product require warranty service, please contact HUMAX to obtain the appropriate authorization.

Deutschland (Premiere)	
Tel:	01805-778900 (€ 0,14/Min)
Öffnungszeiten:	Mo-So 8:00-23:00 Uhr
E-mail:	support@humax-digital.de
Website:	www.humax-digital.de
Sprache:	Deutsch/Englisch/Türkisch

Austria	
Tel:	0820 400675 (€0,14/min)
Opening Hours:	Mon-Sun 8:00-23:00
E-mail:	support@humax-digital.de
Website:	www.humax-digital.de
Language:	Deutsch/English/Turkish

Note: For hardware repair, please visit our website.

14. Appendix

14.7 Remote Control Code List

1. Using the universal remote control

1. Select the mode(TV, PDR, DVD, AUDIO) you want to set by pressing the corresponding button on the remote control. The button will blink once.
2. Keep pressing the button for 3 seconds until the button lights on.
3. Enter the 4-digit code. Every time a number is entered, the button will blink. When the fourth digit is entered, the button will blink twice.
4. If a valid 4-digit code is entered, the product will power off.
5. Press the **OK** button and the mode button will blink three times. The setup is complete.
6. If the product does not power off, repeat the instruction from 3 to 5.

Note:

- When no code is entered for one minute the Universal setting mode will switch to normal mode.
- Try several setting codes and select the code that has the most functions.

Remote Control Function List

The keys on the remote control function as in the list below.

Note: Some keys may not function depending on the product.

Button	TV	DVD	AUDIO
STANDBY	POWER	POWER	POWER
🔇	MUTE	MUTE	MUTE
PDR			
TV			
DVD			
AUDIO			
1	DIGIT 1	1	INPUT 1
2	DIGIT 2	2	INPUT 2
3	DIGIT 3	3	INPUT 3
4	DIGIT 4	4	INPUT 4
5	DIGIT 5	5	INPUT 5
6	DIGIT 6	6	INPUT 6
7	DIGIT 7	7	INPUT 7
8	DIGIT 8	8	INPUT 8
9	DIGIT 9	9	INPUT 9
0	DIGIT 0, 11	0	INPUT 0

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Button	TV	DVD	AUDIO
LISTE		LIST	
MENÜ	MENU	MENU	MENU/MODE
▶	TEXT EXPAND	PLAY	PLAY
⏸	TEXT HOLD	PAUSE	PAUSE
■	PIP INPUT	STOP	STOP
●	PIP MOVE	RECORD, OPEN CLOSE	RECORD
◀◀	PIP OFF	REWIND, SEARCH REVERSE; SCAN	DVD SEARCH REW, CD SEARCH REW, REW
▶▶	PIP	FAST FORWARD, SEARCH FORWARD; SCAN	FAST FORWARD, DVD SEARCH REW, CD SEARCH REW, REW
⏮	TEXT MIX	SKIP -, TRACK -, CHAPTER -	DVD SKIP -, CD SKIP -, SKIP -
⏭	TEXT OFF, TV	SKIP, TRACK +, CHAPTER +	DVD SKIP+, CD SKIP +, SKIP +
RED	RED	RED	RED
GREEN	GREEN	GREEN	GREEN
YELLOW	YELLOW	YELLOW	YELLOW
BLUE	BLUE	PROGRAMME	BLUE
ARCHIV			
EPG	GUIDE	GUIDE	DSP MODE
OK	OK	OK	OK
UP	UP	UP	UP
LEFT	LEFT	LEFT	LEFT
RIGHT	RIGHT	RIGHT	RIGHT
DOWN	DOWN	DOWN	DOWN
ZURÜCK	EXIT	EXIT, RETIRN	EXIT
LETZTER	LAST, RECALL; PP; LAST CHANNEL	CLEAR	REPEAT
VOL+	VOL+	VOL+	VOL+
VOL-	VOL-	VOL-	VOL-
i	INFO, OSD; DISPLAY	INFO, OSD; DISPLAY	INFO
OPT+			RANDOM
P+	P+	P+	P+
P-	P-	P-	P-

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Button	TV	DVD	AUDIO
TEXT	TEXT	PVR MENU	
?		AUDIO, LANGUAGE	SURROUND
	SUBTITLE, LANGUAGE; CC	SUBTITLE	
TV/RADIO	TV/DTV ATV/DTV; D/A; DTV/TV; DTV; DIGITIAL	HDD, DVD/HDD	BAND
EDIT	ANALOG TV, ATV	DVD	
	TEXT SUBPAGE TEXT TIME		RANDOM
	TEXT INDEX	TITLE	
	TEXT POSITION TEXT CANCEL; TEXT UPDATE	SLOW; STEP	
QUELLE	SOURCE, AV, 55INPUT; TV/AV	SOURCE, TV/DVD, TV/DISK	SOURCE, FUNCTION
SLEEP	SLEEP	SLEEP	SLEEP
V-FORMAT	TEXT SIZE; TEXT EXPAND; FTB		
ZOOM	WIDE, FORMAT, 16:9, ASPECT; ZOOM	ZOOM	

2. TV Code List

Brand	Code
A.R. Systems	0556, 0037, 0455, 0352, 0374
Accent	0037
Acer	1339, 1403, 1509
Acoustic Solutions	1149, 1523, 1545, 1667, 1727, 1865, 2055
Acura	0009
ADL	1217
Admiral	0264, 0087, 0093, 0163
Advent	0876, 1613
Adyson	0216, 0217
AEG	1163, 1324, 1556, 2096
Agashi	0264, 0216, 0217
AGB	0516
Agef	0087
Aiko	0037, 0361, 0264, 0433, 0009, 0035, 0072, 0191,0216, 0217, 0371
Aim	0037, 0805
Airis	1531, 1833, 2050
Aiwa	0701, 0705, 1916
Akai	0556, 0037, 0548, 0714, 0715, 0606, 0361, 0264,0433, 0729, 1259, 1413, 0648, 0631, 2021, 0602,2025, 2096, 0516, 0480, 0473, 0371, 0217, 0216,0208, 0191, 0163, 0072, 0035, 0009, 0745, 1537
Akiba	0037, 0218, 0455, 0282
Akito	0037, 0272
Akura	0037, 0714, 0668, 1037, 0264, 0218, 0009, 0171,0282, 0412, 1498, 1556, 1687, 1982
Alaron	0216
Alba	0037, 0714, 0668, 1037, 0487, 0370, 0218, 0036,0587, 2050, 1997, 1935, 1731, 0551, 0480, 0443,0418, 0371, 0355, 0247, 0216, 0163, 0009
AlfaView	1206
All-Tel	0865, 1269
Allorgan	0206, 0217
Allstar	0037
Amitech	0655, 1281
Amoi	1529

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Amplivision	0370, 0217, 0320
Amstrad	0037, 1037, 0264, 0218, 0433, 0009, 0163, 0171,0362, 0371, 0412, 0516, 0648, 1820, 1890, 1982
Anam	0037, 0009
Anam National	0037, 0650
Andersson	1149, 1163
Anglo	0264, 0009
Anitech	0037, 0264, 0009, 0282
Ansonic	0037, 0668, 0370, 0009, 0104, 0163, 0259, 0292,0374, 0411, 1437
AOC	0625, 1365, 1588
Apollo	0473
Apro	1846
Arc En Ciel	0109
Arcam	0216, 0217
Ardem	0037, 0714
Arena	0037
Aristona	0556, 0037
ART	1037
Arthur Martin	0163
ASA	0070, 0087, 0104, 0105, 0346
Asberg	0037
Asora	0009
Asuka	0264, 0218, 0216, 0217, 0282
Atec	1606, 1728
Atlantic	0037, 0206, 0216, 0259, 0320
Atori	0009
Auchan	0163
Audiosonic	0037, 0714, 0486, 0715, 0264, 0370, 0218, 0009,0109, 0217, 0374, 0865, 1308, 1800, 2050
Audioton	0486, 0264, 0370, 0217
Audiovox	0451
Aumark	0060
Autovox	0087, 0206, 0217, 0247, 0349, 0544
AVC	2044
Avious	1634
Awa	0606, 0036, 0108, 0009, 0011, 0217, 0451, 1376
Axxent	0009
Baier	0876

Baird	0072, 0073, 0109, 0193, 0208, 0217, 0343, 1196
Bang & Olufsen	0087, 0565, 0619, 0620
Barco	0163
Basic Line	0556, 0037, 0668, 1037, 0218, 0455, 0009, 0163,0217, 0282, 0339, 0374, 1163
Bastide	0217
Bauer	0805, 1615
Baur	0037, 0195, 0361, 0191, 0349, 0512, 0535, 0544,0554
Bazin	0217
Beaumark	0178
Beko	0037, 0714, 0486, 0715, 0606, 0370, 0418, 0808,1652, 1800
Belson	0698, 0894, 1191
Belstar	1037
BenQ	1212, 1562, 1574
Bensten	1326, 1890, 1893
Beon	0037, 0418
Berthen	0668
Best	0370
Bestar	0037, 0370, 0374
Bestar-Daewoo	0374
Binatone	0217
Black Diamond	1909, 1037, 0614, 1163
Black Star	0247
Blackway	0218, 0282
Blaupunkt	0195, 0036, 0455, 0170, 0191, 0200, 0327, 0535,0554
Blue Media	1606, 1728
Blue Sky	0556, 0037, 0714, 0668, 1037, 0715, 0487, 0218,0455, 0499, 0624, 0282, 1191, 1243, 1314, 1363,1521, 1652, 1709, 1916
Blue Star	0282
BlueH	1745
Boca	1652
Boman	1324
Bondstec	0247
Boots	0009, 0217, 0272
Bork	1363
Bosch	0320
Boxlight	0736

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BPL	0037, 0208, 0282, 0896
Brandt	0625, 0714, 0560, 0109, 0287, 0335
Brimax	1709
Brinkmann	0037, 0668, 0486, 0418, 0519
Brionvega	0037, 0087, 0362
Britannia	0216, 0217
Brother	0264
Bruns	0087
BSR	0163
BTC	0218
Bush	0556, 0037, 0714, 0668, 1037, 0698, 0487, 0361,0264, 0218, 0036, 0587, 1687, 1682, 1667, 1652,1645, 1634, 1556, 1731, 1869, 1870, 1871, 1900,1954, 1982, 2050, 2053, 2055, 2056, 0009, 0208,0217, 0272, 0282, 0349, 0355, 0371, 0374, 0519,0614, 0660, 0661, 0778, 1149, 1166, 1243, 1259,1308
Canton	0218
Capsonic	0264
Carad	0668, 1037, 0610
Carena	0037, 0455
Carrefour	0037, 0036, 0070
Carver	0170
Cascade	0037, 0009
Casio	0037
Cat	1682, 2155
Cathay	0037, 1727
CCE	0037
cello	1770, 1820, 1844, 1845, 1846
Centrum	1037
Centurion	0037
Century	0087, 0247
CGE	0370, 0074, 0163, 0247, 0418
Changhong	0821
Chimei	2052, 1837
Cimline	0218, 0009
Cineral	0451
Cinex	0648, 1166, 1556
Citizen	0060
City	0009
Clarivox	0037, 0070, 0418
Classic	0499
Clatronic	0037, 0714, 0264, 0370, 0218, 0009, 0217, 0247,0320, 0371, 1324
Clayton	1037
CMS	0216
CMS Hightec	0217
Concorde	0009
Condor	0037, 0264, 0370, 0009, 0216, 0247, 0282, 0320,0411, 0418
Conia	0820, 0894, 1498, 1687
Conrac	0808
Contec	0037, 0036, 0009, 0216
Continental Edison	0487, 0109, 0287
Cosmel	0037, 0009
Crosley	0074, 0087, 0163, 0247
Crown	0037, 0714, 0668, 1037, 0486, 0715, 0487, 0606,0712, 0370, 1652, 0672, 0418, 0412, 0339, 0208,0009
Crown Mustang	0672
CS Electronics	0218, 0216, 0247
CTC	0247
CTX	1756
Curtis Mathes	0060, 0093, 0145, 0166, 0451
Cybertron	0218
Cytronix	1298
D-Vision	0556, 0037, 1982
Daewoo	0556, 0037, 0634, 1909, 0218, 1902, 1812, 1612,1598, 1376, 1307, 0880, 0876, 0865, 0778, 0661,0624, 0499, 0451, 0374, 0217, 0216, 0009
Dainichi	0218, 0216
Daitsu	1267
Dansai	0037, 0036, 0009, 0035, 0208, 0216, 0217
Dansette	0412
Dantax	0714, 1037, 0486, 0715, 0370, 1652, 1916, 1981
Datsura	0208
Davis	0736
Dawa	0037
Daytek	1207, 1374, 1376
Dayton	0009, 1207, 1374
Daytron	0037, 0009, 0374
De Graaf	0548, 0044, 0163, 0208
DEC	1326

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Decca	0037, 0072, 0217, 0272, 0516, 0621
Dell	1264, 1403
Denko	0264
Denon	0145
Denver	0037, 0587, 1189, 1324, 1634, 1820, 1988, 2050,2096
DER	0193
Desmet	0037, 0009, 0087, 0320
DGM	1890
Diamant	0037
Diamond	0825
DiBoss	1474
Digatron	0037
Digihome	1149, 1667
Digiline	0037, 0668, 0105
Digimate	0890
Digital Device	1606
Digitek	1521, 1709
Digitrex	2056
Digix Media	0880
Dixi	0037, 0009, 0087, 0217, 0247
DL	0891, 1326
DMTech	1338, 1898, 1964, 1994, 2001
Domeos	0668
Domland	0394
Dream Vision	1704
DTS	0009
Dual	0037, 1037, 1137, 0217, 0259, 0343, 0349, 0352,0394, 0519, 0544, 0778, 1149, 1202, 1267, 2032
Dual Tec	0217
Dumont	0070, 0072, 0087, 0104, 0217
Durabrand	1437, 1652, 1988
Dux	0037
Dynatech	0217
Dynatron	0037
e-motion	1709
E:max	1324, 1531
Easy Living	1248, 1553, 1783
Ecco	0773

ECE	0037
Edison-Minerva	0487
Eiki	0735
Elba-Sharp	0516
Elbe	0556, 0037, 0610, 0218, 0191, 0217, 0259, 0292,0362, 0411, 0435, 0516, 0551, 0630
Elcit	0087, 0163, 0247, 0516
Elekta	0264, 0282
Element	1687
Elfunk	1037, 1208
ELG	0037
Elin	0037, 0548, 0361, 0009, 0104, 0349
Elite	0037, 0218, 0320
Elta	0264, 0009
Emco	0247
Emerson	0037, 0714, 0668, 1909, 0486, 0361, 0370, 0070,0087, 0178, 0247, 0282, 0320, 0371, 0624
Emperor	0282
Envision	1365
Epson	0881, 1290, 0833, 0840
Erae	1371
Erres	0037
ESC	0037, 0217
Etron	0009, 0163
Eurofeel	0264, 0217
Euroman	0037, 0264, 0370, 0216, 0217
Europa	0037
Europhon	0037, 0217, 0516
Evesham	1248, 1606, 1667, 1719, 1728
Evesham Technology	1728
Evolution	1756
Excors	2031
Expert	0163, 0206, 0259
Exquisit	0037, 0247
FairTec	1373
Fenner	0009, 0374
Ferguson	0037, 0625, 0548, 0560, 0195, 1037, 0073, 0109,0193, 0287, 0335, 0343, 0443, 1471, 1935, 2053
Fidelity	0037, 0361, 0264, 0163, 0171, 0193, 0216, 0371,0412, 0512, 0544

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Filsai	0217
Finlandia	0548, 0361, 0072, 0163, 0208, 0346
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   This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form

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   If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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   c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
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